

=> fil reg

FILE 'REGISTRY' ENTERED AT 10:43:31 ON 02 FEB 2003  
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STRUCTURE FILE UPDATES: 31 JAN 2003 HIGHEST RN 484598-30-3  
DICTIONARY FILE UPDATES: 31 JAN 2003 HIGHEST RN 484598-30-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP  
PROPERTIES for more information. See STNote 27, Searching Properties  
in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d his

(FILE 'HOME' ENTERED AT 09:30:54 ON 02 FEB 2003)  
SET COST OFF

FILE 'REGISTRY' ENTERED AT 09:31:30 ON 02 FEB 2003  
E NAALADASE/CN

L1 1 S E3  
E NAALADASE  
L2 15 S E3

FILE 'HCAPLUS' ENTERED AT 09:31:50 ON 02 FEB 2003

L3 521 S L1  
L4 528 S L2  
L5 121 S NAALADASE  
L6 153 S GAMMA(S) GLUTAMYL(S) HYDROLASE OR (ACETYLASPARTYLGLUTAMATE OR A  
L7 346 S CARBOXYPEPTIDASE() (G OR G2) OR (GLUTAMATE OR GLUTAMYL OR PSMA  
L8 320 S (FOLATE OR FOLIC ACID OR FOLYL) () (CONJUGASE OR HYDROLASE) OR  
L9 272 S POLY GAMMA GLUTAMIC ACID ENDOHYDROLASE OR (POLYGLUTAMATE OR P  
L10 2 S (PTEROYLPOLY OR PTEROYL POLY) () GAMMA () (GLUTAMATE OR GLUTAMYL  
L11 0 S PTEROLYPOLYGAMMAGLUTAMYL HYDROLASE  
L12 0 S PTEROLYPOLYGAMMAGLUTAMIC ACID HYDROLASE  
L13 3 S (PTEROYLPOLY OR PTEROYL POLY) (S) GAMMA (S) (GLUTAMATE OR GLUTAM  
L14 1070 S L3-L13  
E RETINOPATHY/CT  
E E3+ALL  
L15 2582 S E2  
L16 1929 S EYE, DISEASE#/CT (L) RETINA?  
L17 34 S EYE, DISEASE#/CT (L) ?HYPERTENS?  
E MACULAR DEGENERATION/CT  
E E3+ALL  
L18 696 S E2  
L19 951 S EYE, DISEASE#/CT (L) MACULA#  
L20 1420 S EYE, DISEASE#/CT (L) DEGENER?  
E GLAUCOMA/CT  
L21 3023 S E3-E12  
E E3+ALL  
L22 69 S E1  
E E3+ALL

Jan Delaval  
Reference Librarian  
Biotechnology & Chemical Library  
CM1 1E07 - 703-308-4498  
[jan.delaval@uspto.gov](mailto:jan.delaval@uspto.gov)

```

                E GLAUCOMA/CT
                E E4+ALL
L23            2938 S E5,E4+NT
L24            4582 S E6-E9/BI
                E RETINA/CT
                E E3+ALL
L25            13984 S E2
L26            23953 S E1/BI
L27            22680 S RETINAL
L28            4183 S RETINOPATH?
L29            6157 S ?GLAUCOM? OR ?OCULAR?(L)?TENSI?
L30            1236 S MACULA#(L)DEGENER?
                E ANTIGLAUCOMA/CT
L31            976 S E4,E5
                E E4+ALL
L32            1160 S E3-E6/BI
L33            11 S L14 AND L15-L32
                E EYE/CT
L34            55612 S E3-E151
L35            10347 S E152-E170
L36            21003 S E171-E252
L37            3468 S E253-E258,E264
L38            4039 S E274-E279
                E EYE/CT
                E E3+ALL
L39            61384 S E8,E7+NT
                E E25+ALL
L40            1759 S E4-E7/BI
L41            23771 S E3+NT
L42            11 S L14 AND L34-L41
L43            13 S L33,L42
L44            3 S L43 AND ?METAL?
L45            1 S L44 NOT 3/SC,SX
L46            10 S L43 NOT L44
L47            4 S L46 AND BENZEN?/SC,SX,BI
L48            3 S L46 AND BENZO?/SC,SX,BI
L49            5 S L47,L48
L50            6 S L45,L49
L51            5 S L46 NOT L50
                SEL DN AN 3 5
L52            2 S E1-E6
L53            8 S L50,L52
                E SLUSHER B/AU
L54            79 S E3-E8
                E WOZNIAK K/AU
L55            252 S E3-E5,E18-E22
                E GUILFORD/PA,CS
                E GUILF/PA,CS
L56            411 S E4-E39
L57            53 S L56 AND L14
L58            5 S L57 AND L15-L41
L59            68 S L54,L55 AND L14
L60            4 S L59 AND L15-L41
L61            8 S L53,L58,L60
L62            8 S L61 AND L3-L61

```

FILE 'REGISTRY' ENTERED AT 10:08:30 ON 02 FEB 2003

FILE 'HCAPLUS' ENTERED AT 10:08:30 ON 02 FEB 2003

```

                SET SMARTSELECT ON
L63            SEL L14 1- RN : 13404 TERMS
                SET SMARTSELECT OFF

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L64 FILE 'REGISTRY' ENTERED AT 10:09:03 ON 02 FEB 2003  
13383 S L63

FILE 'HCAPLUS' ENTERED AT 10:10:02 ON 02 FEB 2003  
SET SMARTSELECT ON  
L65 SEL L62 1- RN : 394 TERMS  
SET SMARTSELECT OFF

FILE 'REGISTRY' ENTERED AT 10:10:03 ON 02 FEB 2003  
L66 394 S L65  
L67 STR  
L68 SCR 2021  
L69 50 S L67 AND L68  
L70 SCR 1771  
L71 30 S L67 AND L70  
L72 1429 S L67 AND L70 FUL  
SAV L72 FAY866/A  
L73 106 S L72 AND L66  
L74 106 S L72 AND L64  
L75 106 S L73,L74  
L76 STR  
L77 12 S L76 SAM SUB=L72  
L78 STR L76  
L79 4 S L78 SAM SUB=L72  
L80 275 S L76 FUL SUB=L72  
SAV L80 FAY866A/A  
L81 112 S L78 FUL SUB=L80  
SAV L81 FAY275B/A  
DEL FAY275B/A  
SAV L81 FAY866B/A  
L82 59 S L81 NOT L75  
L83 24 S L82 AND (C31H32N4O6S OR C42H42N4O5S OR C9H9NO3S2 OR C23H24N2O  
L84 14 S L82 AND (C10H13NO2S2 OR C10H11NO5S2 OR C9H9NO3S2 OR C23H24NO5  
L85 3 S L82 AND (C23H25NO5S2 OR C44H42N4O5S2 OR C39H41N5O5S)  
L86 36 S L83-L85  
L87 23 S L82 NOT L86  
L88 129 S L75,L87  
SAV L88 FAY866C/A

FILE 'HCAOLD' ENTERED AT 10:37:04 ON 02 FEB 2003  
L89 2 S L88  
SEL AN  
EDIT /AN /OREF

FILE 'HCAPLUS' ENTERED AT 10:37:29 ON 02 FEB 2003  
L90 4 S E1-E2  
L91 2 S L90 NOT (PERIARD ? OR VOSS ?)/AU  
L92 47 S L88  
L93 5 S L92 AND L62  
L94 3 S L62 NOT L93  
L95 8 S L62,L93,L94  
L96 6 S L92 AND L14  
L97 7 S L92 AND L15-L32,L34-L41  
L98 8 S L96,L97  
L99 11 S L98,L95  
L100 7 S L99 AND (PD<=20000530 OR PRD<=20000530 OR AD<=20000530)  
L101 4 S L99 NOT L100  
L102 7 S L100 AND L3-L62,L90-L101  
L103 4 S L101 AND L3-L62,L90-L102

FILE 'REGISTRY' ENTERED AT 10:43:31 ON 02 FEB 2003

=> d l1 ide can

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS  
RN 9074-87-7 REGISTRY  
CN Hydrolase, .gamma.-glutamyl (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN .gamma.-Glutamyl hydrolase  
CN Acetylaspartylglutamate dipeptidase  
CN Carboxypeptidase G  
CN Carboxypeptidase G 2  
CN Conjugase  
CN E.C. 3.4.12.10  
CN E.C. 3.4.17.11  
CN E.C. 3.4.17.21  
CN E.C. 3.4.19.9  
CN E.C. 3.4.22.12  
CN Folate conjugase  
CN Folate hydrolase  
CN Folic acid conjugase  
CN Folyl conjugase  
CN Folylpoly-.gamma.-glutamate carboxypeptidase  
CN Folylpolyglutamate hydrolase  
CN Glutamate carboxypeptidase  
CN Glutamate carboxypeptidase II  
CN Glutamyl carboxypeptidase  
CN N-Acetylated-.alpha.-linked acidic dipeptidase  
CN N-acetylated-.alpha.-linked-amino dipeptidase  
CN N-Pteroyl-L-glutamate hydrolase  
CN **NAALADase**  
CN Poly(.gamma.-glutamic acid) endohydrolase  
CN Polyglutamate hydrolase  
CN Prostate-specific membrane antigen  
CN PSMA carboxypeptidase  
CN Pteroyl-.gamma.-glutamyl carboxypeptidase  
CN Pteroylpoly-.gamma.-glutamate hydrolase  
CN Pteroylpoly-.gamma.-glutamyl hydrolase  
CN Pteroylpolygammaglutamyl hydrolase  
CN Pteroylpolyglutamate hydrolase  
CN Pteroylpolyglutamic acid hydrolase  
DR 55326-32-4, 61584-57-4, 37279-02-0, 111070-04-3  
MF Unspecified  
CI MAN  
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA,  
CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, DDFU, DRUGU, EMBASE, PROMT,  
TOXCENTER, USPAT2, USPATFULL  
Other Sources: EINECS\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

461 REFERENCES IN FILE CA (1962 TO DATE)

33 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

462 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 138:67363  
REFERENCE 2: 138:38068  
REFERENCE 3: 138:24015  
REFERENCE 4: 138:13959  
REFERENCE 5: 138:13048  
REFERENCE 6: 137:380049

REFERENCE 7: 137:367451

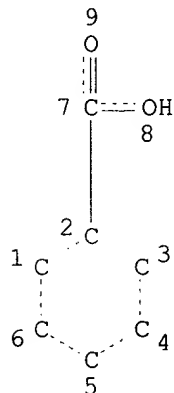
REFERENCE 8: 137:365725

REFERENCE 9: 137:362990

REFERENCE 10: 137:351659

=> d sta que 181

L67 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC 2

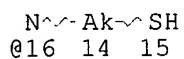
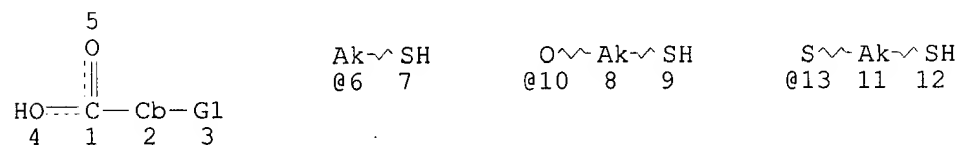
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE

L70 SCR 1771

L72 1429 SEA FILE=REGISTRY SSS FUL L67 AND L70

L76	STR
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VAR G1=6/10/13/16

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY UNS AT 2

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

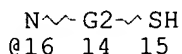
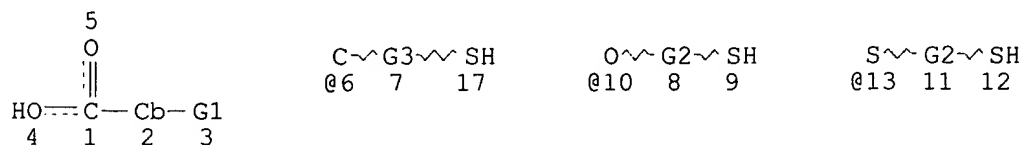
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE

L78

STR



VAR G1=6/10/13/16

REP G2=(2-2) C

REP G3=(0-2) C

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY UNS AT 2

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

L80 275 SEA FILE=REGISTRY SUB=L72 SSS FUL L76

L81 112 SEA FILE=REGISTRY SUB=L80 SSS FUL L78

100.0% PROCESSED 275 ITERATIONS

112 ANSWERS

SEARCH TIME: 00.00.01

=&gt; fil hcaold

FILE 'HCAOLD' ENTERED AT 10:44:46 ON 02 FEB 2003

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PRE-1967 CHEMICAL ABSTRACTS FILE WITH HOUR-BASED PRICING

FILE COVERS 1907-1966

FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=&gt; d all hitstr tot 189

L89 ANSWER 1 OF 2 HCAOLD COPYRIGHT 2003 ACS

AN CA58:3359g CAOLD

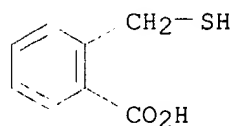
TI products from HCHO and o-mercaptomethylbenzoic acid

AU Schlatter, Maurice J.

PA Chevron Research Co.

DT Patent

	PATENT NO.	KIND	DATE
PI	US 3053890		1962
IT	38335-14-7	90536-44-0	
IT	38335-14-7		
RN	38335-14-7	HCAOLD	
CN	Benzoic acid, 2-(mercaptomethyl)- (9CI) (CA INDEX NAME)		



L89 ANSWER 2 OF 2 HCAOLD COPYRIGHT 2003 ACS  
 AN CA53:20529f CAOLD  
 TI aminopterin for psoriasis  
 AU Rees, Rees B.; Bennett, J. H.  
 IT 70-49-5 96-27-5 758-08-7 760-30-5 763-35-9 1190-73-4  
 3375-50-6 4542-46-5 6986-60-3 13839-15-1 18889-18-4 19788-48-8  
 20292-02-8 20938-74-3 21115-85-5 24517-45-1 24687-42-1 32810-20-1  
 35331-24-9 **39088-65-8** 42302-16-9 49594-30-1 51621-19-3  
 54010-24-1 69753-45-3 88512-15-6 88512-26-9 89166-53-0 91007-96-4  
 92204-20-1 92204-26-7 98025-55-9 98137-55-4 98278-38-7 100368-00-1  
 IT **39088-65-8**  
 RN 39088-65-8 HCAOLD  
 CN Benzoic acid, 4-(mercaptomethyl)- (9CI) (CA INDEX NAME)

HO2C



CH2-SH

=> fil hcaplus  
 FILE 'HCAPLUS' ENTERED AT 10:44:57 ON 02 FEB 2003  
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FILE COVERS 1907 - 2 Feb 2003 VOL 138 ISS 6  
 FILE LAST UPDATED: 31 Jan 2003 (20030131/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all hitstr tot 191

L91 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS

AN 1963:20561 HCAPLUS

DN 58:20561

OREF 58:3359g-h

TI Products from formaldehyde and o-mercaptomethylbenzoic acid

IN Schlatter, Maurice J.

PA California Research Corp.

SO 4 pp.

DT Patent

LA Unavailable

NCL 260516000

CC 35 (Noncondensed Aromatic Compounds)

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

US 3053890		19620911	US	19600331
------------	--	----------	----	----------

AB Hydroxymethyl o-carboxybenzyl sulfide (I), m. 133.6-4.2.degree. was prepd. from a mixt. of 7.38 g. aq. HCHO (36.6%) and 5.05 g. o-mercaptomethylbenzoic acid (II) in 60 ml. EtOH. II (10 g.) in 20 g. aq. HCHO (36.6%) heated 1 hr. at 80-90.degree. and cooled gave 3.41 g. bis(o-carboxybenzylthio)methane (III), m. 199.6-201.0.degree. (alc.). III was also obtained by heating I at 165.degree.. The hexamethylene salt of III was prepd. in H2O and polymerized by heating in an oil bath at 260.degree. for 30 min. under N and then for 2-4 hrs. while gradually reducing the pressure to 1 mm. The polymer is a useful component of surface coatings.

IT Formaldehyde, homopolymer

(reaction products of, with .alpha.-mercapto-o-toluic acid)

IT o-Toluic acid, .alpha.,.alpha.'-(methylenedithio)di-, 1,6-hexanediamine salt

IT 90536-44-0, o-Toluic acid, .alpha.-[(hydroxymethyl)thio]- (prepn. of)

IT 38335-14-7, o-Toluic acid, .alpha.-mercapto- (reaction products with formaldehyde)

L91 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS

AN 1959:114400 HCAPLUS

DN 53:114400

OREF 53:20529f-h

TI Further observations on aminopterin for psoriasis

AU Rees, Rees B.; Bennett, James H.

CS Univ. of California, San Francisco

SO J. Invest. Dermatol. (1959), 32, 61-6

DT Journal

LA Unavailable

CC 11H (Biological Chemistry: Pharmacology)

AB Improvement or clearing of psoriatic lesions occurred in 82% of psoriatic patients given a total of not more than 6 mg. aminopterin over a period of several days. Toxic symptoms developed in 21% of the patients treated (in 28% of those whose response was excellent). Mild toxic symptoms were observed in 39% of a test group given over 100 mg. during a period of 1-5 years. Daraprim in doses of 25 mg. daily for 1 month was without benefit or significant toxic effect; similar neg. results were obtained with purinethol (6-mercaptapurine) in doses of 50 mg. 4 times daily for 6 days.

=> d 1102 all hitstr tot

L102 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:886142 HCAPLUS



DN 136:15255  
 TI **NAALADase** inhibitors for treating **retinal** disorders  
 and **glaucoma**  
 IN **Slusher, Barbara S.; Wozniak, Krystyna**  
 PA **Guilford Pharmaceuticals Inc., USA**  
 SO PCT Int. Appl., 196 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C07F009-02  
 CC 1-12 (Pharmacology)  
 Section cross-reference(s): 29, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001092274	A2	20011206	WO 2001-US17288	20010530 <--
	WO 2001092274	A3	20020530		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
PRAI	US 2000-207320P	P	20000530	<--	
OS	MARPAT 136:15255				
AB	The invention discloses pharmaceutical compns. and methods for treating a <b>retinal</b> disorder or <b>glaucoma</b> using <b>NAALADase</b> inhibitors.				
ST	<b>NAALADase</b> inhibitor prepn <b>retinal</b> disorder <b>glaucoma</b>				
IT	<b>Antiglaucoma agents</b> Drug delivery systems ( <b>NAALADase</b> inhibitors for treating <b>retinal</b> disorders and <b>glaucoma</b> )				
IT	Resolution (separation) (chromatog.; <b>NAALADase</b> inhibitors for treating <b>retinal</b> disorders and <b>glaucoma</b> )				
IT	<b>Eye, disease</b> ( <b>diabetic retinopathy</b> ; <b>NAALADase</b> inhibitors for treating <b>retinal</b> disorders and <b>glaucoma</b> )				
IT	<b>Eye, disease</b> ( <b>macula, senile degeneration</b> ; <b>NAALADase</b> inhibitors for treating <b>retinal</b> disorders and <b>glaucoma</b> )				
IT	<b>Metals, biological studies</b> RL: BSU (Biological study, unclassified); BIOL (Biological study) ( <b>metal-binding group-contg. acids</b> ; <b>NAALADase</b> inhibitors for treating <b>retinal</b> disorders and <b>glaucoma</b> )				
IT	<b>Acids, biological studies</b> RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) ( <b>metal-binding group-contg.</b> ; <b>NAALADase</b> inhibitors for treating <b>retinal</b> disorders and <b>glaucoma</b> )				
IT	<b>Eye, disease</b> ( <b>retinopathy</b> ; <b>NAALADase</b> inhibitors for treating <b>retinal</b> disorders and <b>glaucoma</b> )				
IT	9074-87-7, <b>NAALADase</b> RL: BSU (Biological study, unclassified); BIOL (Biological study)				

(**NAALADase** inhibitors for treating **retinal**  
disorders and **glaucoma**)

IT **378241-97-5P**

RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(**NAALADase** inhibitors for treating **retinal**  
disorders and **glaucoma**)

IT 2417-72-3P **377731-26-5P** **377731-28-7P**

**378241-94-2P** **378242-00-3P** **378242-07-0P**

**378242-12-7P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(**NAALADase** inhibitors for treating **retinal**  
disorders and **glaucoma**)

IT 89-73-6 89-73-6D, enantiomers 99-31-0 99-31-0D, enantiomers  
528-44-9, 1,2,4-Benzenetricarboxylic acid 528-44-9D,  
1,2,4-Benzenetricarboxylic acid, enantiomers 554-95-0,  
1,3,5-Benzenetricarboxylic acid 554-95-0D, 1,3,5-Benzenetricarboxylic  
acid, enantiomers 586-35-6 586-35-6D, enantiomers 610-29-7  
610-29-7D, enantiomers 618-83-7 618-83-7D, enantiomers 618-88-2  
618-88-2D, enantiomers 636-46-4 636-46-4D, enantiomers 4315-09-7  
4315-09-7D, enantiomers 6344-50-9 6344-50-9D, enantiomers 10312-55-7  
10312-55-7D, enantiomers 19089-60-2 19089-60-2D, enantiomers  
21615-52-1 21615-52-1D, enantiomers 22326-31-4 22326-31-4D,  
enantiomers 25062-54-8 25062-54-8D, enantiomers **28162-88-1**  
**28162-88-1D**, enantiomers **38335-14-7** 52137-56-1  
52137-56-1D, enantiomers 76784-92-4 76784-92-4D, enantiomers  
143193-46-8 143193-46-8D, enantiomers 173039-10-6 173039-10-6D,  
enantiomers 173039-11-7 173039-11-7D, enantiomers 197630-75-4  
197630-75-4D, enantiomers 197630-78-7 197630-78-7D, enantiomers  
197630-80-1 197630-80-1D, enantiomers 197630-81-2 197630-81-2D,  
enantiomers 200123-75-7 200123-75-7D, enantiomers 200698-17-5  
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272128-61-7D, enantiomers 272128-62-8 272128-62-8D, enantiomers  
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enantiomers 377081-82-8 377081-82-8D, enantiomers **377081-83-9**  
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enantiomers **377081-90-8** **377081-90-8D**, enantiomers  
**377081-91-9** **377081-91-9D**, enantiomers 377081-92-0

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378242-58-1 378242-59-2 378242-60-5 378242-61-6  
378242-62-7 378242-63-8 378242-64-9  
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enantiomers 378242-68-3 378242-68-3D, enantiomers  
378242-69-4 378242-69-4D, enantiomers  
378242-70-7 378242-70-7D, enantiomers  
378242-71-8 378242-71-8D, enantiomers  
378242-72-9 378242-72-9D, enantiomers  
378242-73-0 378242-73-0D, enantiomers  
378242-74-1 378242-74-1D, enantiomers  
378242-75-2

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)

(**NAALADase** inhibitors for treating **retinal**  
disorders and **glaucoma**)

IT 378242-75-2D, enantiomers 378242-76-3  
378242-76-3D, enantiomers 378242-77-4  
378242-77-4D, enantiomers 378242-78-5  
378242-78-5D, enantiomers 378242-79-6  
378242-79-6D, enantiomers 378242-80-9  
378242-80-9D, enantiomers 378242-81-0  
378242-81-0D, enantiomers 378242-82-1  
378242-82-1D, enantiomers 378242-83-2  
378242-83-2D, enantiomers 378242-84-3  
378242-84-3D, enantiomers 378242-85-4  
378242-85-4D, enantiomers 378242-86-5  
378242-86-5D, enantiomers 378242-88-7  
378242-88-7D, enantiomers 378242-89-8  
378242-89-8D, enantiomers 378242-90-1  
378242-90-1D, enantiomers 378242-91-2  
378242-91-2D, enantiomers 378242-92-3  
378242-92-3D, enantiomers 378242-93-4  
378242-93-4D, enantiomers 378242-94-5  
378242-94-5D, enantiomers 378242-95-6  
378242-95-6D, enantiomers 378242-96-7  
378242-96-7D, enantiomers 378242-97-8  
378242-97-8D, enantiomers 378242-98-9  
378242-98-9D, enantiomers 378242-99-0  
378242-99-0D, enantiomers 378243-00-6  
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378243-11-9D, enantiomers 378243-12-0 378243-12-0D, enantiomers  
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 378243-79-9 378243-80-2 378243-81-3

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)

(**NAALADase** inhibitors for treating **retinal**  
 disorders and **glaucoma**)

IT 378241-98-6P 378241-99-7P

RL: PUR (Purification or recovery); PREP (Preparation)

(**NAALADase** inhibitors for treating **retinal**  
 disorders and **glaucoma**)

IT 185051-07-4P 220464-68-6P 377082-02-5P 377082-03-6P 377082-04-7P  
 377082-05-8P 377082-06-9P 377731-27-6P 377731-29-8P 377731-30-1P  
 377731-31-2P 377731-32-3P 377731-33-4P 377731-34-5P 378241-95-3P  
 378242-01-4P 378242-02-5P 378242-03-6P 378242-04-7P 378242-05-8P  
 378242-06-9P 378242-08-1P 378242-09-2P 378242-10-5P  
 378242-11-6P 378242-13-8P 378242-15-0P 378242-16-1P 378242-17-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)

(prepn. and reaction; **NAALADase** inhibitors for treating  
**retinal** disorders and **glaucoma**)

IT 99-06-9, reactions 122-52-1, Triethyl phosphite 358-23-6, Triflic  
 anhydride 507-09-5, Thioacetic acid, reactions 1003-42-5 2687-43-6,  
 O-Benzylhydroxylamine hydrochloride 4105-93-5 4334-87-6 5985-24-0  
 6967-82-4 7486-35-3, Tributyl(vinyl)tin 10387-40-3, Potassium  
 thioacetate 16308-65-9 25487-66-5, 3-Carboxyphenylboronic acid  
 29547-04-4 91367-05-4 156750-11-7 164014-40-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction; **NAALADase** inhibitors for treating **retinal**  
 disorders and **glaucoma**)

IT 9074-87-7, **NAALADase**

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(**NAALADase** inhibitors for treating **retinal**  
 disorders and **glaucoma**)

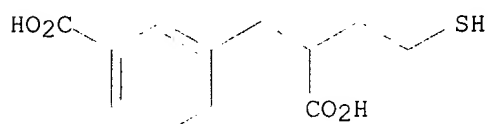
RN 9074-87-7 HCAPLUS  
 CN Hydrolase, .gamma.-glutamyl (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 378241-97-5P  
 RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (NAALADase inhibitors for treating retinal disorders and glaucoma)

RN 378241-97-5 HCAPLUS  
 CN Benzenepropanoic acid, 3-carboxy-.alpha.-(2-mercaptoethyl)-, (+)- (9CI)  
 (CA INDEX NAME)

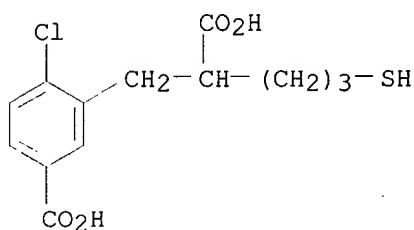
Rotation (+).



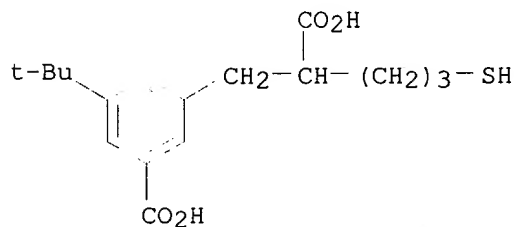
IT 377731-26-5P 377731-28-7P 378241-94-2P  
 378242-00-3P 378242-07-0P 378242-12-7P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(NAALADase inhibitors for treating retinal disorders and glaucoma)

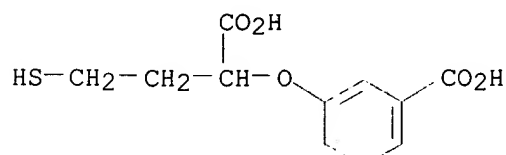
RN 377731-26-5 HCAPLUS  
 CN Benzenepropanoic acid, 5-carboxy-2-chloro-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



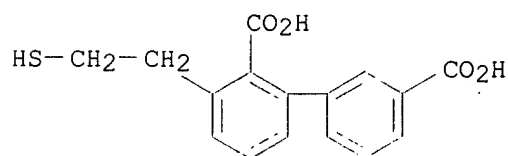
RN 377731-28-7 HCAPLUS  
 CN Benzenepropanoic acid, 3-carboxy-5-(1,1-dimethylethyl)-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



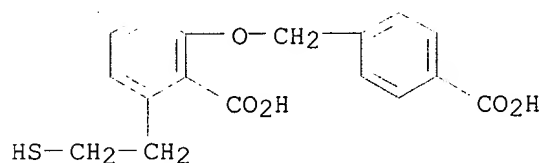
RN 378241-94-2 HCAPLUS  
 CN Benzoic acid, 3-(1-carboxy-3-mercaptopropoxy)- (9CI) (CA INDEX NAME)



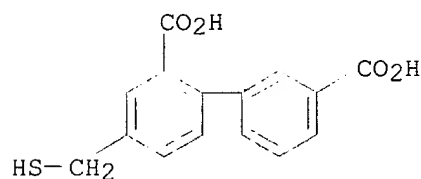
RN 378242-00-3 HCAPLUS  
 CN [1,1'-Biphenyl]-2,3'-dicarboxylic acid, 3-(2-mercaptoethyl)- (9CI) (CA  
 INDEX NAME)



RN 378242-07-0 HCAPLUS  
 CN Benzoic acid, 2-[(4-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA  
 INDEX NAME)



RN 378242-12-7 HCAPLUS  
 CN [1,1'-Biphenyl]-2,3'-dicarboxylic acid, 4-(mercaptomethyl)- (9CI) (CA  
 INDEX NAME)



IT 28162-88-1 28162-88-1D, enantiomers 38335-14-7  
 377081-83-9 377081-83-9D, enantiomers  
 377081-90-8 377081-90-8D, enantiomers  
 377081-91-9 377081-91-9D, enantiomers  
 377081-93-1 377081-93-1D, enantiomers  
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 378242-00-3D, enantiomers 378242-07-0D, enantiomers  
 378242-12-7D, enantiomers 378242-22-9  
 378242-23-0 378242-26-3 378242-27-4  
 378242-30-9 378242-44-5 378242-46-7  
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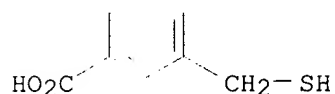
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 378242-86-5 378242-86-5D, enantiomers  
 378242-88-7 378242-88-7D, enantiomers  
 378242-89-8 378242-89-8D, enantiomers  
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 378243-73-3 378243-75-5 378243-76-6  
 378243-77-7 378243-78-8 378243-80-2  
 378243-81-3

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)

(NAALADase inhibitors for treating retinal  
 disorders and glaucoma)

RN 28162-88-1 HCAPLUS

CN Benzoic acid, 3-(mercaptomethyl)- (9CI) (CA INDEX NAME)

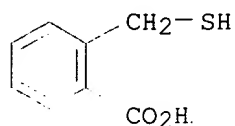


RN 28162-88-1 HCAPLUS

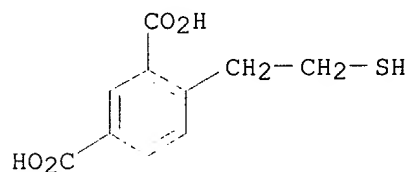
CN Benzoic acid, 3-(mercaptomethyl)- (9CI) (CA INDEX NAME)



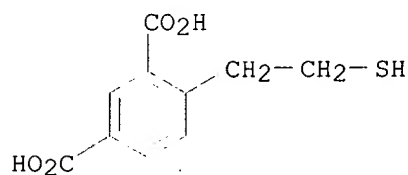
RN 38335-14-7 HCAPLUS  
 CN Benzoic acid, 2-(mercaptomethyl)- (9CI) (CA INDEX NAME)



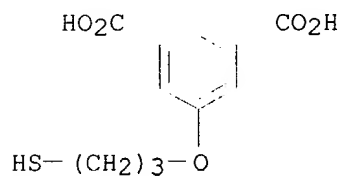
RN 377081-83-9 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, 4-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



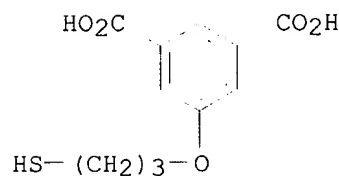
RN 377081-83-9 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, 4-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



RN 377081-90-8 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, 5-(3-mercaptopropoxy)- (9CI) (CA INDEX NAME)

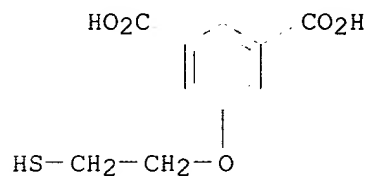


RN 377081-90-8 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, 5-(3-mercaptopropoxy)- (9CI) (CA INDEX NAME)

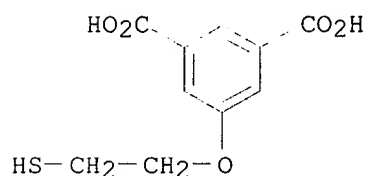


RN 377081-91-9 HCAPLUS  
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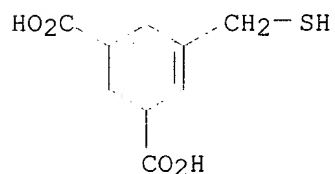




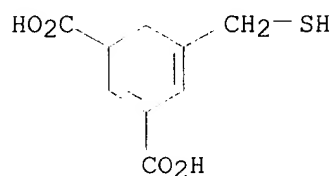
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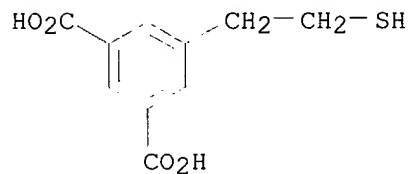
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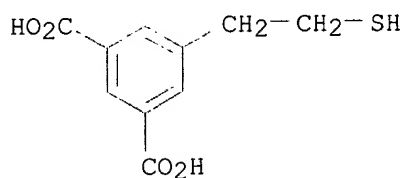
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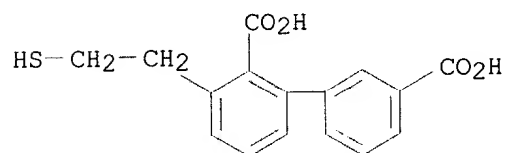
RN 377081-97-5 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, 5-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



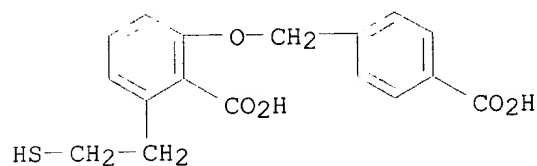
RN 377081-97-5 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, 5-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



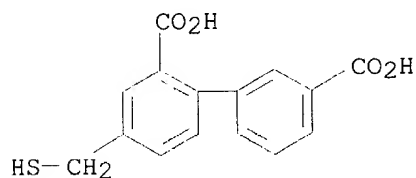
RN 378242-00-3 HCAPLUS  
 CN [1,1'-Biphenyl]-2,3'-dicarboxylic acid, 3-(2-mercaptoethyl)- (9CI) (CA  
 INDEX NAME)



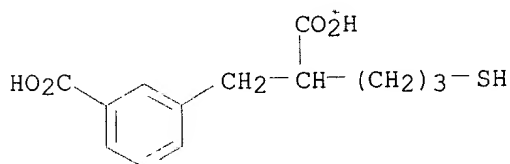
RN 378242-07-0 HCAPLUS  
 CN Benzoic acid, 2-[(4-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA  
 INDEX NAME)



RN 378242-12-7 HCAPLUS  
 CN [1,1'-Biphenyl]-2,3'-dicarboxylic acid, 4-(mercaptomethyl)- (9CI) (CA  
 INDEX NAME)

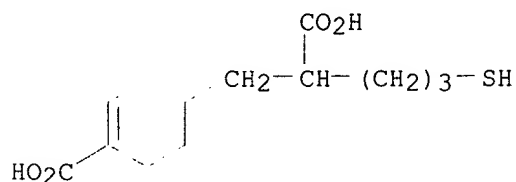


RN 378242-22-9 HCAPLUS  
 CN Benzenepropanoic acid, 3-carboxy-.alpha.-(3-mercaptopropyl)- (9CI) (CA  
 INDEX NAME)



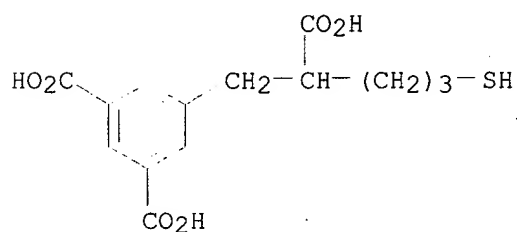
RN 378242-23-0 HCAPLUS  
 CN Benzenepropanoic acid, 4-carboxy-.alpha.-(3-mercaptopropyl)- (9CI) (CA

INDEX NAME)



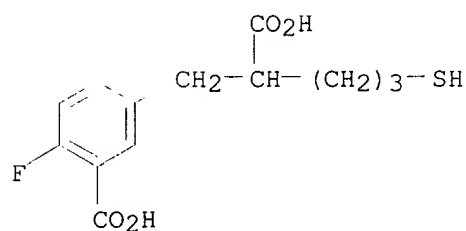
RN 378242-26-3 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-(2-carboxy-5-mercaptopentyl)- (9CI) (CA INDEX NAME)



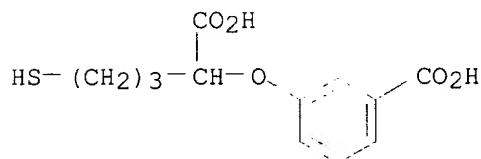
RN 378242-27-4 HCAPLUS

CN Benzenepropanoic acid, 3-carboxy-4-fluoro-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



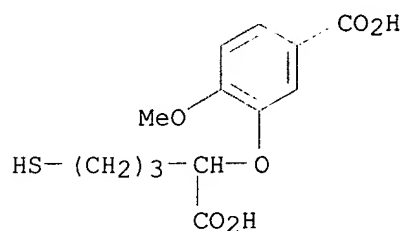
RN 378242-30-9 HCAPLUS

CN Benzoic acid, 3-(1-carboxy-4-mercaptobutoxy)- (9CI) (CA INDEX NAME)



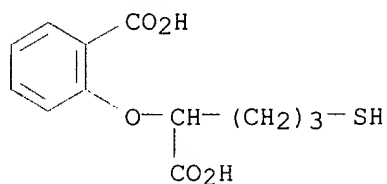
RN 378242-44-5 HCAPLUS

CN Benzoic acid, 3-(1-carboxy-4-mercaptobutoxy)-4-methoxy- (9CI) (CA INDEX NAME)



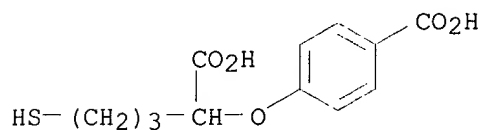
RN 378242-46-7 HCAPLUS

CN Benzoic acid, 2-(1-carboxy-4-mercaptobutoxy)- (9CI) (CA INDEX NAME)



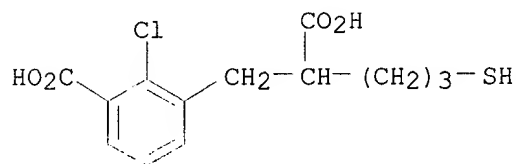
RN 378242-47-8 HCAPLUS

CN Benzoic acid, 4-(1-carboxy-4-mercaptobutoxy)- (9CI) (CA INDEX NAME)



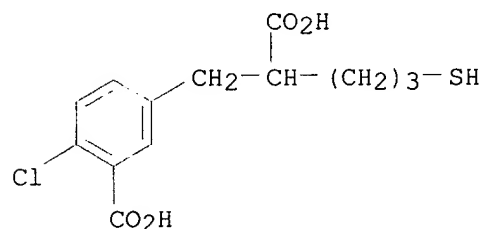
RN 378242-48-9 HCAPLUS

CN Benzenepropanoic acid, 3-carboxy-2-chloro-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)

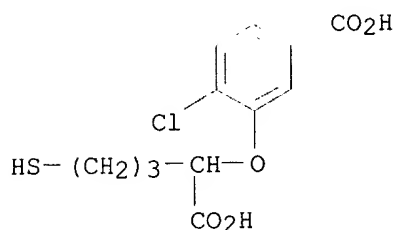


RN 378242-49-0 HCAPLUS

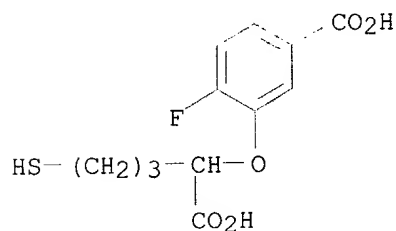
CN Benzenepropanoic acid, 3-carboxy-4-chloro-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



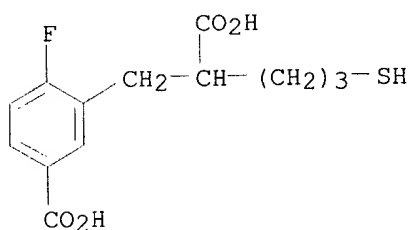
RN 378242-50-3 HCAPLUS  
 CN Benzoic acid, 3-(1-carboxy-4-mercaptobutoxy)-4-chloro- (9CI) (CA INDEX NAME)



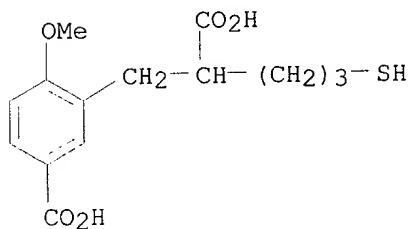
RN 378242-51-4 HCAPLUS  
 CN Benzoic acid, 3-(1-carboxy-4-mercaptobutoxy)-4-fluoro- (9CI) (CA INDEX NAME)



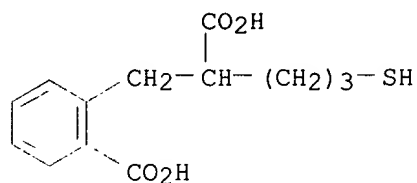
RN 378242-52-5 HCAPLUS  
 CN Benzenepropanoic acid, 5-carboxy-2-fluoro-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



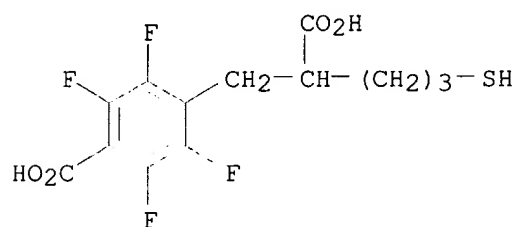
RN 378242-53-6 HCAPLUS  
 CN Benzenepropanoic acid, 5-carboxy-.alpha.-(3-mercaptopropyl)-2-methoxy- (9CI) (CA INDEX NAME)



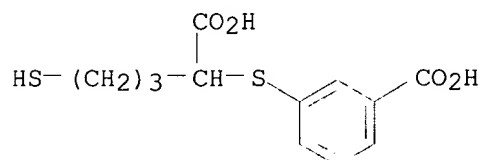
RN 378242-55-8 HCAPLUS  
 CN Benzenepropanoic acid, 2-carboxy-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



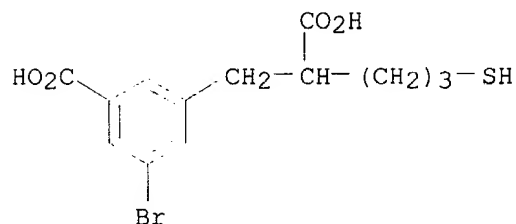
RN 378242-56-9 HCAPLUS  
 CN Benzenepropanoic acid, 4-carboxy-2,3,5,6-tetrafluoro-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



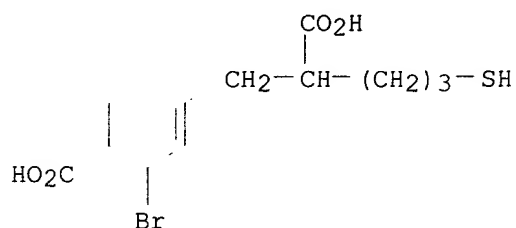
RN 378242-58-1 HCAPLUS  
 CN Benzoic acid, 3-[(1-carboxy-4-mercaptopropyl)thio]- (9CI) (CA INDEX NAME)



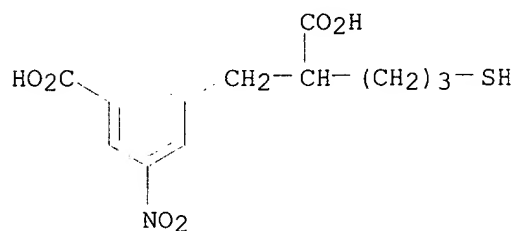
RN 378242-62-7 HCAPLUS  
 CN Benzenepropanoic acid, 3-bromo-5-carboxy-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



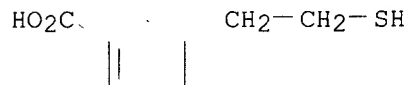
RN 378242-64-9 HCAPLUS  
 CN Benzenepropanoic acid, 3-bromo-4-carboxy-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



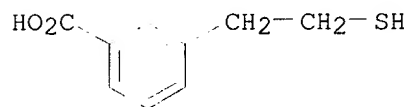
RN 378242-66-1 HCAPLUS  
 CN Benzenepropanoic acid, 3-carboxy-.alpha.-(3-mercaptopropyl)-5-nitro- (9CI)  
 (CA INDEX NAME)



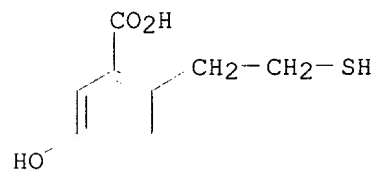
RN 378242-67-2 HCAPLUS  
 CN Benzoic acid, 3-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



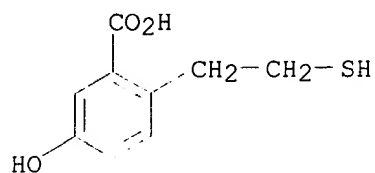
RN 378242-67-2 HCAPLUS  
 CN Benzoic acid, 3-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



RN 378242-68-3 HCAPLUS  
 CN Benzoic acid, 5-hydroxy-2-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)

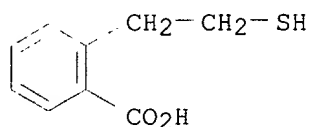


RN 378242-68-3 HCAPLUS  
 CN Benzoic acid, 5-hydroxy-2-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



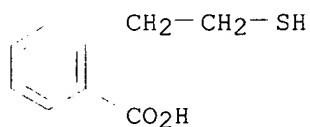
RN 378242-69-4 HCAPLUS

CN Benzoic acid, 2-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



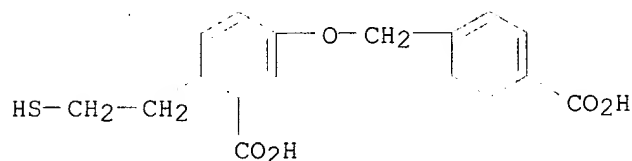
RN 378242-69-4 HCAPLUS

CN Benzoic acid, 2-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



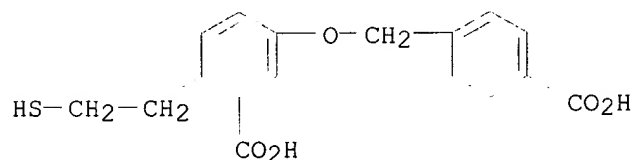
RN 378242-70-7 HCAPLUS

CN Benzoic acid, 5-[(4-carboxyphenyl)methoxy]-2-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



RN 378242-70-7 HCAPLUS

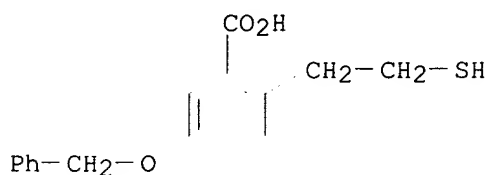
CN Benzoic acid, 5-[(4-carboxyphenyl)methoxy]-2-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



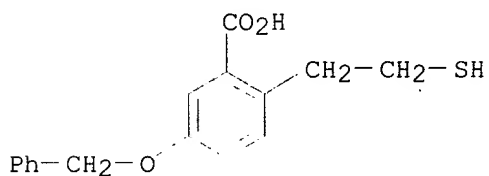
RN 378242-71-8 HCAPLUS

CN Benzoic acid, 2-(2-mercaptoethyl)-5-(phenylmethoxy)- (9CI) (CA INDEX NAME)

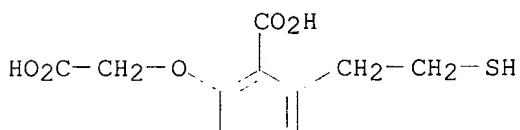




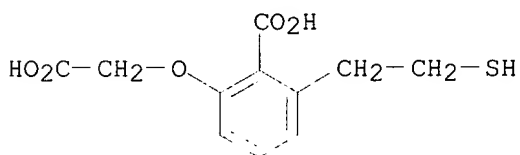
RN 378242-71-8 HCAPLUS  
 CN Benzoic acid, 2-(2-mercaptoethyl)-5-(phenylmethoxy)- (9CI) (CA INDEX NAME)



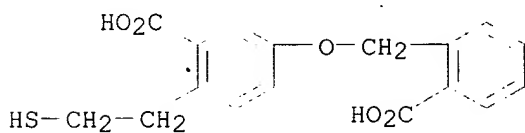
RN 378242-72-9 HCAPLUS  
 CN Benzoic acid, 2-(carboxymethoxy)-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



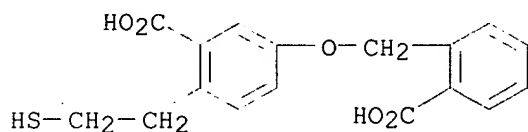
RN 378242-72-9 HCAPLUS  
 CN Benzoic acid, 2-(carboxymethoxy)-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



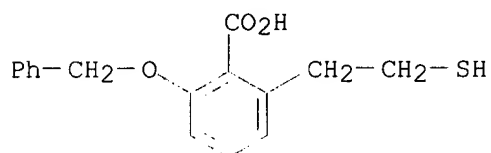
RN 378242-73-0 HCAPLUS  
 CN Benzoic acid, 5-[(2-carboxyphenyl)methoxy]-2-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



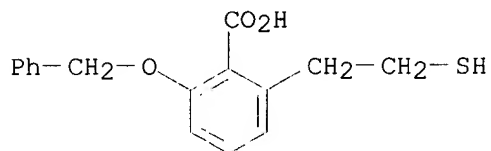
RN 378242-73-0 HCAPLUS  
 CN Benzoic acid, 5-[(2-carboxyphenyl)methoxy]-2-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



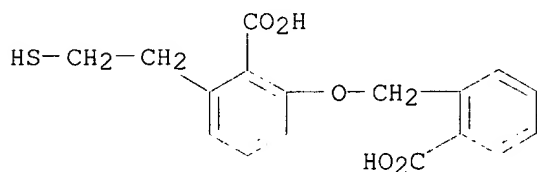
RN 378242-74-1 HCAPLUS  
 CN Benzoic acid, 2-(2-mercaptoethyl)-6-(phenylmethoxy)- (9CI) (CA INDEX NAME)



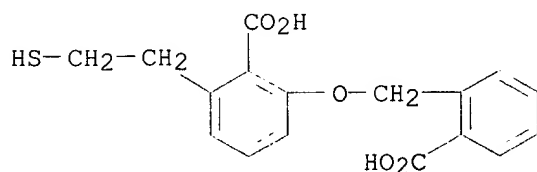
RN 378242-74-1 HCAPLUS  
 CN Benzoic acid, 2-(2-mercaptoethyl)-6-(phenylmethoxy)- (9CI) (CA INDEX NAME)



RN 378242-75-2 HCAPLUS  
 CN Benzoic acid, 2-[(2-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)

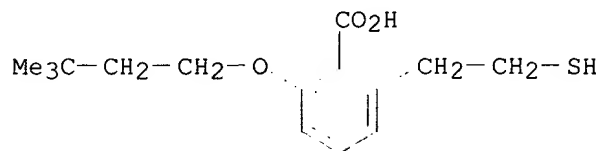


RN 378242-75-2 HCAPLUS  
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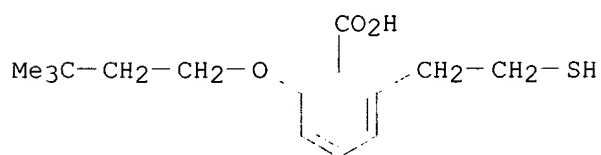


RN 378242-76-3 HCAPLUS  
 CN Benzoic acid, 2-(3,3-dimethylbutoxy)-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)

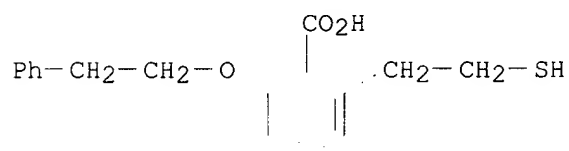
NAME)



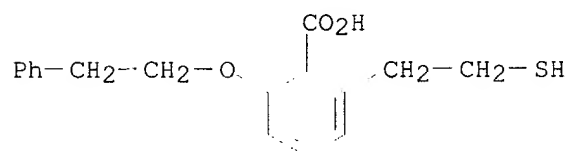
RN 378242-76-3 HCAPLUS  
 CN Benzoic acid, 2-(3,3-dimethylbutoxy)-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



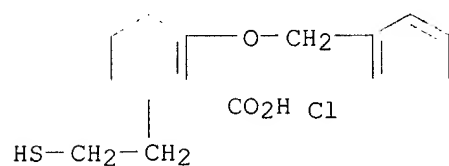
RN 378242-77-4 HCAPLUS  
 CN Benzoic acid, 2-(2-mercaptoethyl)-6-(2-phenylethoxy)- (9CI) (CA INDEX NAME)



RN 378242-77-4 HCAPLUS  
 CN Benzoic acid, 2-(2-mercaptoethyl)-6-(2-phenylethoxy)- (9CI) (CA INDEX NAME)

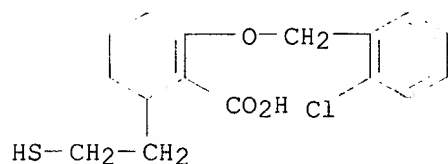


RN 378242-78-5 HCAPLUS  
 CN Benzoic acid, 2-[(2-chlorophenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



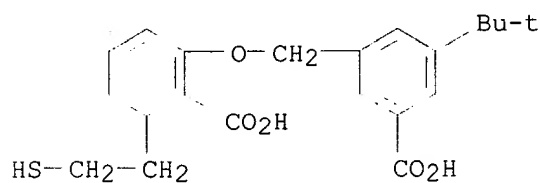
RN 378242-78-5 HCAPLUS

CN Benzoic acid, 2-[(2-chlorophenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



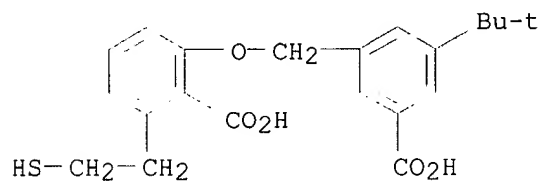
RN 378242-79-6 HCAPLUS

CN Benzoic acid, 2-[[3-carboxy-5-(1,1-dimethylethyl)phenyl]methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



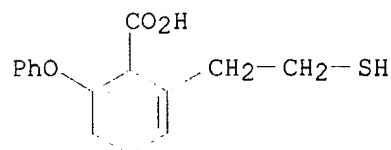
RN 378242-79-6 HCAPLUS

CN Benzoic acid, 2-[[3-carboxy-5-(1,1-dimethylethyl)phenyl]methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



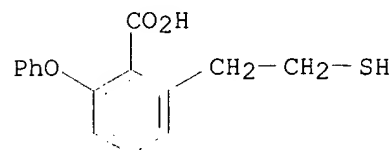
RN 378242-80-9 HCAPLUS

CN Benzoic acid, 2-(2-mercaptoethyl)-6-phenoxy- (9CI) (CA INDEX NAME)

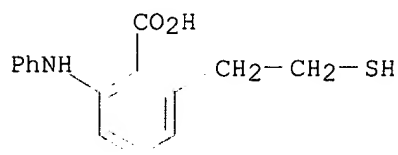


RN 378242-80-9 HCAPLUS

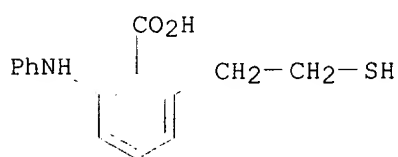
CN Benzoic acid, 2-(2-mercaptoethyl)-6-phenoxy- (9CI) (CA INDEX NAME)



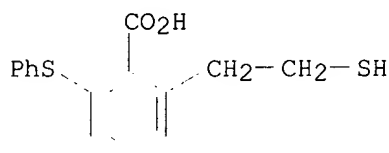
RN 378242-81-0 HCAPLUS  
 CN Benzoic acid, 2-(2-mercaptoethyl)-6-(phenylamino)- (9CI) (CA INDEX NAME)



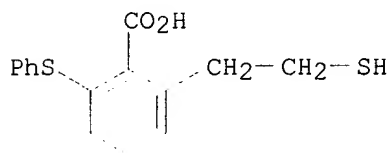
RN 378242-81-0 HCAPLUS  
 CN Benzoic acid, 2-(2-mercaptoethyl)-6-(phenylamino)- (9CI) (CA INDEX NAME)



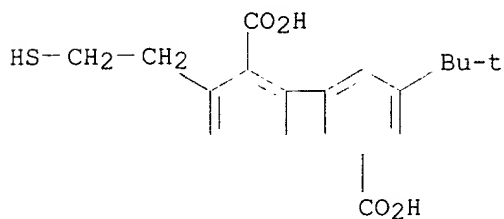
RN 378242-82-1 HCAPLUS  
 CN Benzoic acid, 2-(2-mercaptoethyl)-6-(phenylthio)- (9CI) (CA INDEX NAME)



RN 378242-82-1 HCAPLUS  
 CN Benzoic acid, 2-(2-mercaptoethyl)-6-(phenylthio)- (9CI) (CA INDEX NAME)

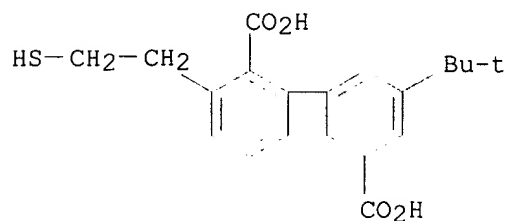


RN 378242-83-2 HCAPLUS  
 CN [1,1'-Biphenyl]-2,3'-dicarboxylic acid, 5'-(1,1-dimethylethyl)-3-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



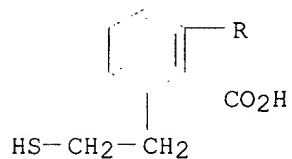
RN 378242-83-2 HCAPLUS

CN [1,1'-Biphenyl]-2,3'-dicarboxylic acid, 5'-(1,1-dimethylethyl)-3-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



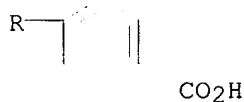
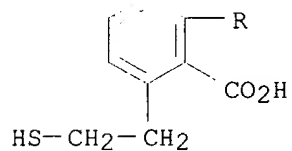
RN 378242-84-3 HCAPLUS

CN [1,1'-Biphenyl]-2,4'-dicarboxylic acid, 3-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



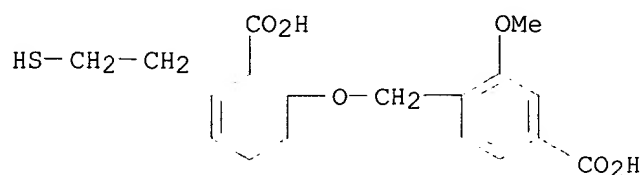
RN 378242-84-3 HCAPLUS

CN [1,1'-Biphenyl]-2,4'-dicarboxylic acid, 3-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



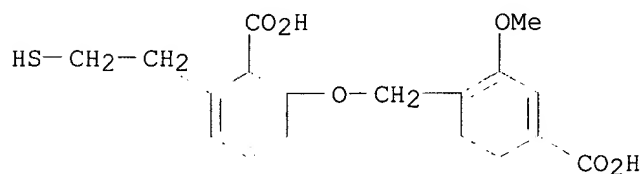
RN 378242-85-4 HCAPLUS

CN Benzoic acid, 2-[(4-carboxy-2-methoxyphenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



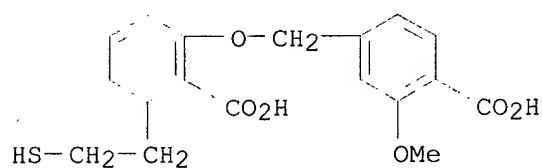
RN 378242-85-4 HCAPLUS

CN Benzoic acid, 2-[(4-carboxy-2-methoxyphenyl)methoxy]-6-(2-mercaptoethyl)-  
(9CI) (CA INDEX NAME)



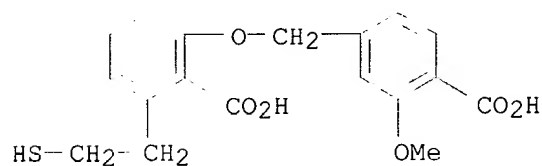
RN 378242-86-5 HCAPLUS

CN Benzoic acid, 4-[[2-carboxy-3-(2-mercaptoethyl)phenoxy]methyl]-2-methoxy-  
(9CI) (CA INDEX NAME)



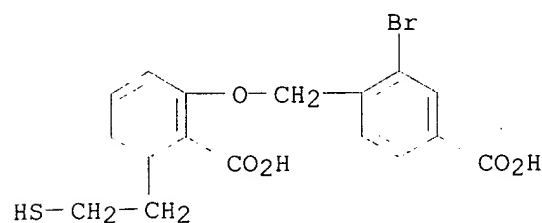
RN 378242-86-5 HCAPLUS

CN Benzoic acid, 4-[[2-carboxy-3-(2-mercaptoethyl)phenoxy]methyl]-2-methoxy-  
(9CI) (CA INDEX NAME)

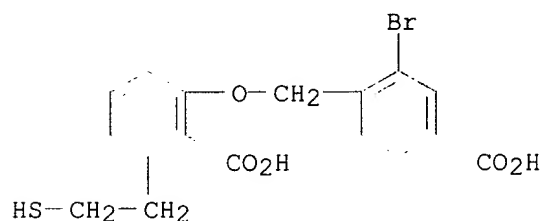


RN 378242-88-7 HCAPLUS

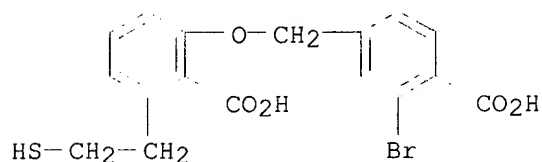
CN Benzoic acid, 2-[(2-bromo-4-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)-  
(9CI) (CA INDEX NAME)



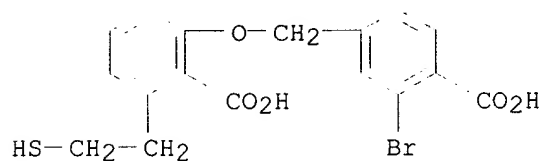
RN 378242-88-7 HCAPLUS  
 CN Benzoic acid, 2-[(2-bromo-4-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)-  
 (9CI) (CA INDEX NAME)



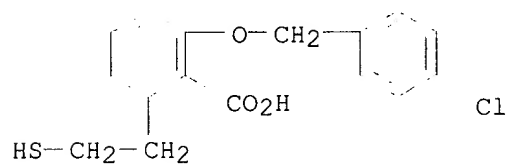
RN 378242-89-8 HCAPLUS  
 CN Benzoic acid, 2-bromo-4-[[2-carboxy-3-(2-mercaptoethyl)phenoxy]methyl]-  
 (9CI) (CA INDEX NAME)



RN 378242-89-8 HCAPLUS  
 CN Benzoic acid, 2-bromo-4-[[2-carboxy-3-(2-mercaptoethyl)phenoxy]methyl]-  
 (9CI) (CA INDEX NAME)

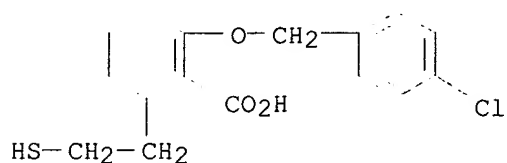


RN 378242-90-1 HCAPLUS  
 CN Benzoic acid, 2-[(4-chlorophenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA  
 INDEX NAME)

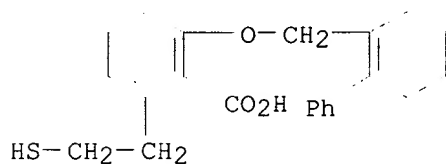


RN 378242-90-1 HCAPLUS  
 CN Benzoic acid, 2-[(4-chlorophenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA  
 INDEX NAME)

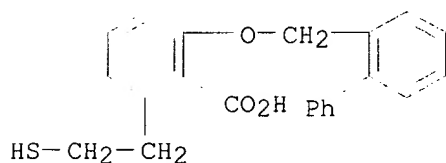




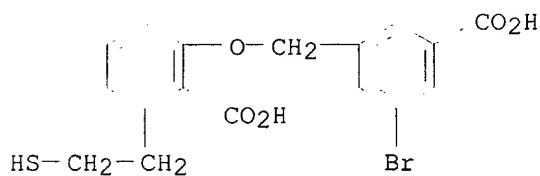
RN 378242-91-2 HCAPLUS  
 CN Benzoic acid, 2-([1,1'-biphenyl]-2-ylmethoxy)-6-(2-mercaptoethyl)- (9CI)  
 (CA INDEX NAME)



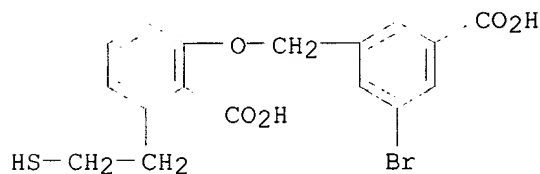
RN 378242-91-2 HCAPLUS  
 CN Benzoic acid, 2-([1,1'-biphenyl]-2-ylmethoxy)-6-(2-mercaptoethyl)- (9CI)  
 (CA INDEX NAME)



RN 378242-92-3 HCAPLUS  
 CN Benzoic acid, 2-[(3-bromo-5-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)

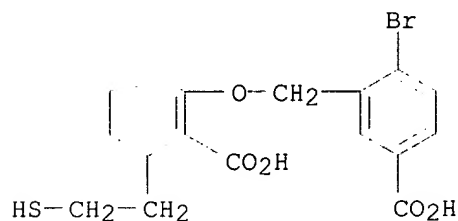


RN 378242-92-3 HCAPLUS  
 CN Benzoic acid, 2-[(3-bromo-5-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)

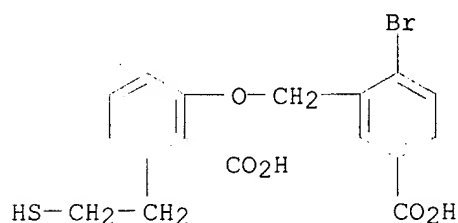


RN 378242-93-4 HCAPLUS  
 CN Benzoic acid, 2-[(2-bromo-5-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)-

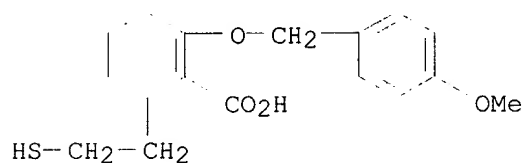
(9CI) (CA INDEX NAME)



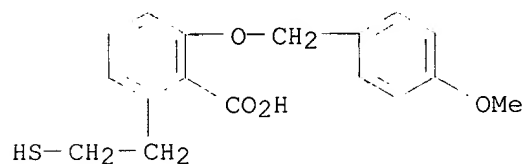
RN 378242-93-4 HCAPLUS

CN Benzoic acid, 2-[(2-bromo-5-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)-  
(9CI) (CA INDEX NAME)

RN 378242-94-5 HCAPLUS

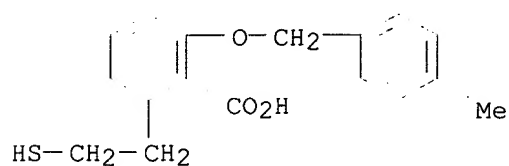
CN Benzoic acid, 2-(2-mercaptoethyl)-6-[(4-methoxyphenyl)methoxy]- (9CI) (CA  
INDEX NAME)

RN 378242-94-5 HCAPLUS

CN Benzoic acid, 2-(2-mercaptoethyl)-6-[(4-methoxyphenyl)methoxy]- (9CI) (CA  
INDEX NAME)

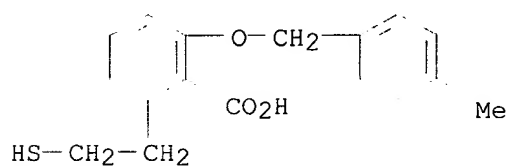
RN 378242-95-6 HCAPLUS

CN Benzoic acid, 2-(2-mercaptoethyl)-6-[(4-methylphenyl)methoxy]- (9CI) (CA  
INDEX NAME)



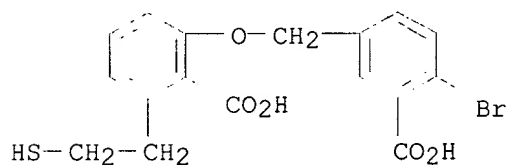
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CN Benzoic acid, 2-(2-mercaptoethyl)-6-[(4-methylphenyl)methoxy]- (9CI) (CA INDEX NAME)



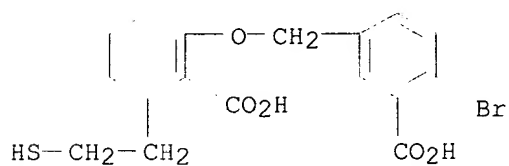
RN 378242-96-7 HCAPLUS

CN Benzoic acid, 2-bromo-5-[[2-carboxy-3-(2-mercaptoethyl)phenoxy]methyl]- (9CI) (CA INDEX NAME)



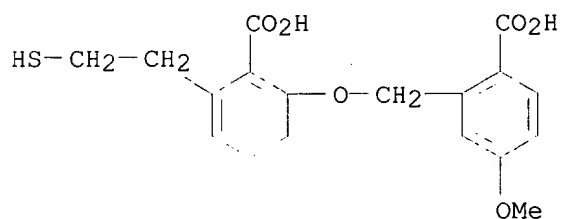
RN 378242-96-7 HCAPLUS

CN Benzoic acid, 2-bromo-5-[[2-carboxy-3-(2-mercaptoethyl)phenoxy]methyl]- (9CI) (CA INDEX NAME)

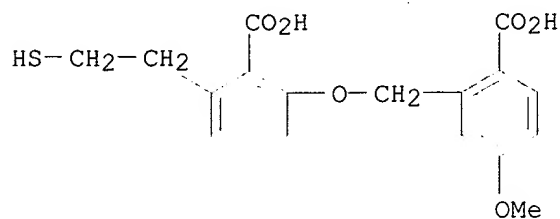


RN 378242-97-8 HCAPLUS

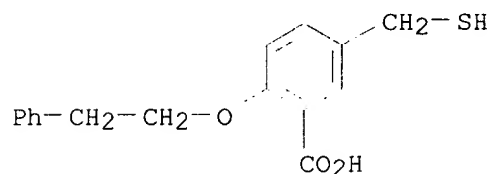
CN Benzoic acid, 2-[[2-carboxy-3-(2-mercaptoethyl)phenoxy]methyl]-4-methoxy- (9CI) (CA INDEX NAME)



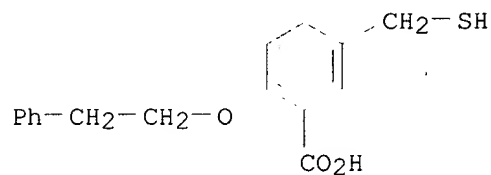
RN 378242-97-8 HCAPLUS

CN Benzoic acid, 2-[[2-carboxy-3-(2-mercaptoethyl)phenoxy]methyl]-4-methoxy-  
(9CI) (CA INDEX NAME)

RN 378242-98-9 HCAPLUS

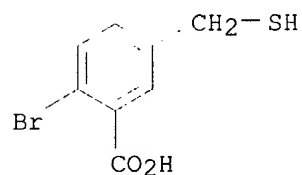
CN Benzoic acid, 5-(mercaptomethyl)-2-(2-phenylethoxy)- (9CI) (CA INDEX  
NAME)

RN 378242-98-9 HCAPLUS

CN Benzoic acid, 5-(mercaptomethyl)-2-(2-phenylethoxy)- (9CI) (CA INDEX  
NAME)

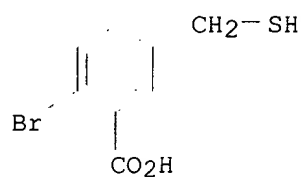
RN 378242-99-0 HCAPLUS

CN Benzoic acid, 2-bromo-5-(mercaptomethyl)- (9CI) (CA INDEX NAME)



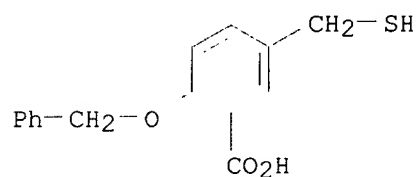
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CN Benzoic acid, 2-bromo-5-(mercaptomethyl)- (9CI) (CA INDEX NAME)



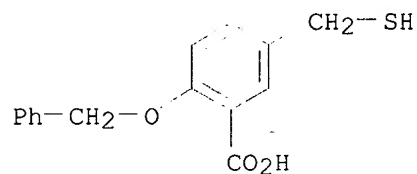
RN 378243-00-6 HCAPLUS

CN Benzoic acid, 5-(mercaptomethyl)-2-(phenylmethoxy)- (9CI) (CA INDEX NAME)



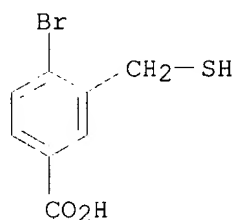
RN 378243-00-6 HCAPLUS

CN Benzoic acid, 5-(mercaptomethyl)-2-(phenylmethoxy)- (9CI) (CA INDEX NAME)



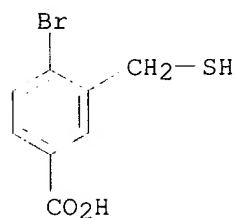
RN 378243-01-7 HCAPLUS

CN Benzoic acid, 4-bromo-3-(mercaptomethyl)- (9CI) (CA INDEX NAME)



RN 378243-01-7 HCAPLUS

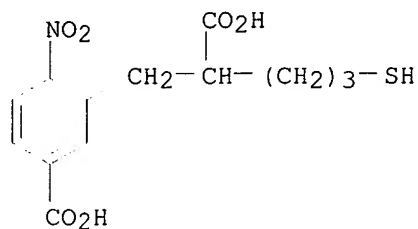
CN Benzoic acid, 4-bromo-3-(mercaptomethyl)- (9CI) (CA INDEX NAME)



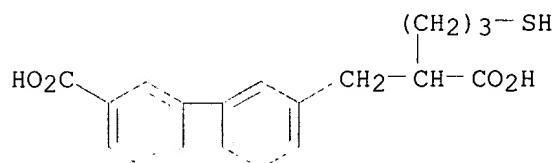
RN 378243-64-2 HCAPLUS

CN Benzenepropanoic acid, 5-carboxy-.alpha.-(3-mercaptopropyl)-2-nitro- (9CI)

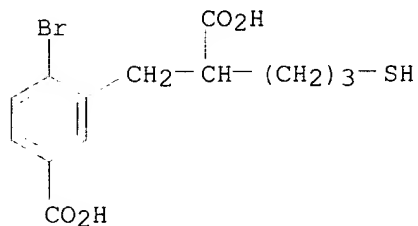
(CA INDEX NAME)



RN 378243-65-3 HCAPLUS

CN [1,1'-Biphenyl]-3-propanoic acid, 3'-carboxy-.alpha.-(3-mercaptopropyl)-  
(9CI) (CA INDEX NAME)

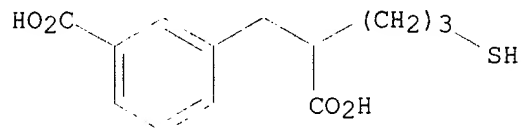
RN 378243-66-4 HCAPLUS

CN Benzenepropanoic acid, 2-bromo-5-carboxy-.alpha.-(3-mercaptopropyl)- (9CI)  
(CA INDEX NAME)

RN 378243-67-5 HCAPLUS

CN Benzenepropanoic acid, 3-carboxy-.alpha.-(3-mercaptopropyl)-, (+)- (9CI)  
(CA INDEX NAME)

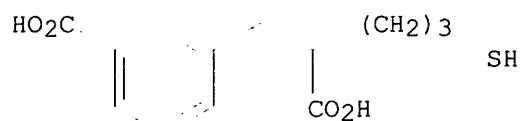
Rotation (+).



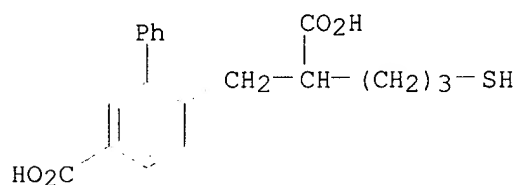
RN 378243-68-6 HCAPLUS

CN Benzenepropanoic acid, 3-carboxy-.alpha.-(3-mercaptopropyl)-, (-)- (9CI)  
(CA INDEX NAME)

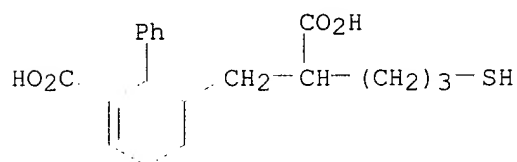
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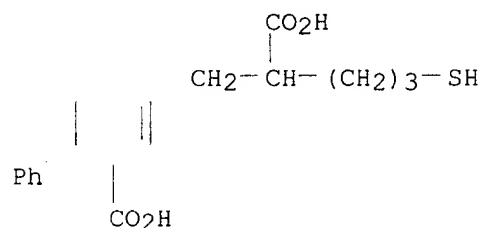
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 CN [1,1'-Biphenyl]-2-propanoic acid, 5-carboxy-.alpha.-(3-mercaptopropyl)-  
 (9CI) (CA INDEX NAME)



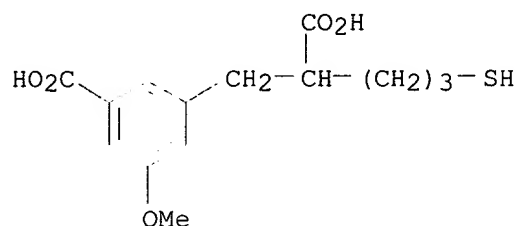
RN 378243-70-0 HCAPLUS  
 CN [1,1'-Biphenyl]-2-propanoic acid, 6-carboxy-.alpha.-(3-mercaptopropyl)-  
 (9CI) (CA INDEX NAME)



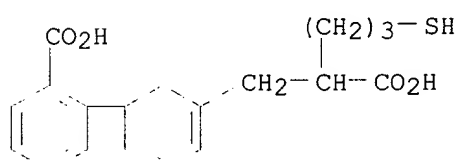
RN 378243-71-1 HCAPLUS  
 CN [1,1'-Biphenyl]-4-propanoic acid, 2-carboxy-.alpha.-(3-mercaptopropyl)-  
 (9CI) (CA INDEX NAME)



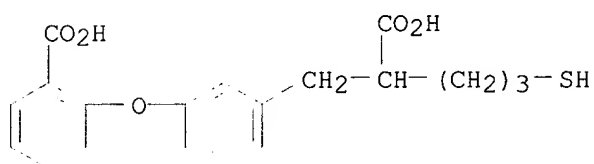
RN 378243-72-2 HCAPLUS  
 CN Benzenepropanoic acid, 3-carboxy-.alpha.-(3-mercaptopropyl)-5-methoxy-  
 (9CI) (CA INDEX NAME)



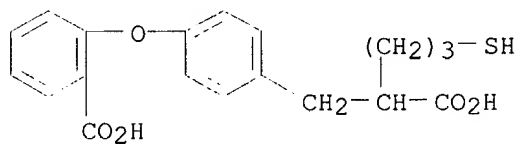
RN 378243-73-3 HCAPLUS  
 CN [1,1'-Biphenyl]-3-propanoic acid, 2'-carboxy-.alpha.-(3-mercaptopropyl)-  
 (9CI) (CA INDEX NAME)



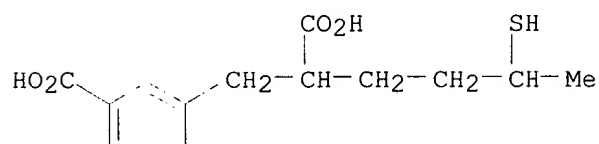
RN 378243-75-5 HCAPLUS  
 CN Benzenepropanoic acid, 3-(2-carboxyphenoxy)-.alpha.-(3-mercaptopropyl)-  
 (9CI) (CA INDEX NAME)



RN 378243-76-6 HCAPLUS  
 CN Benzenepropanoic acid, 4-(2-carboxyphenoxy)-.alpha.-(3-mercaptopropyl)-  
 (9CI) (CA INDEX NAME)



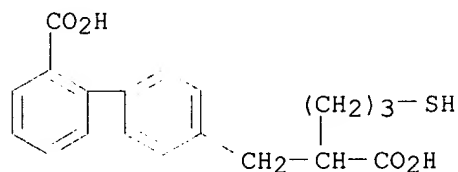
RN 378243-77-7 HCAPLUS  
 CN Benzenepropanoic acid, 3-carboxy-.alpha.-(3-mercaptopropyl)- (9CI) (CA  
 INDEX NAME)



RN 378243-78-8 HCAPLUS

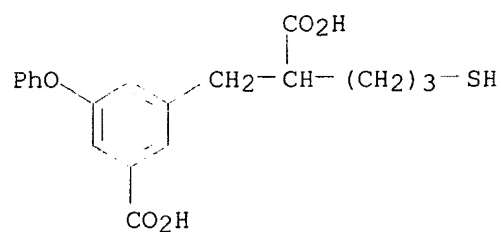


CN [1,1'-Biphenyl]-4-propanoic acid, 2'-carboxy-.alpha.-(3-mercaptopropyl)-  
(9CI) (CA INDEX NAME)



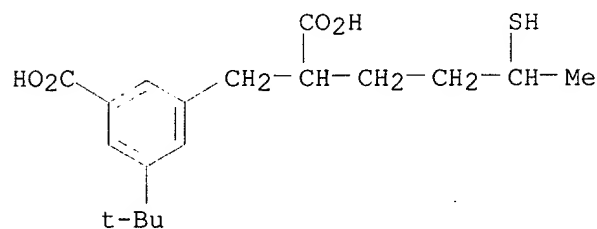
RN 378243-80-2 HCAPLUS

CN Benzenepropanoic acid, 3-carboxy-.alpha.-(3-mercaptopropyl)-5-phenoxy-  
(9CI) (CA INDEX NAME)



RN 378243-81-3 HCAPLUS

CN Benzenepropanoic acid, 3-carboxy-5-(1,1-dimethylethyl)-.alpha.-(3-mercaptobutyl)- (9CI) (CA INDEX NAME)



IT 378241-98-6P 378241-99-7P

RL: PUR (Purification or recovery); PREP (Preparation)

(**NAALADase** inhibitors for treating **retinal**  
disorders and **glaucoma**)

RN 378241-98-6 HCAPLUS

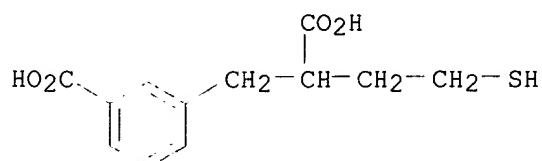
CN Benzenepropanoic acid, 3-carboxy-.alpha.-(2-mercaptoethyl)-, (-)- (9CI)  
(CA INDEX NAME)

Rotation (-).



RN 378241-99-7 HCAPLUS

CN Benzenepropanoic acid, 3-carboxy-.alpha.-(2-mercaptoethyl)- (9CI) (CA  
INDEX NAME)



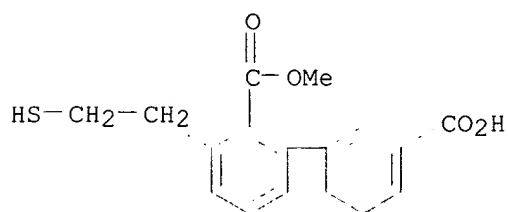
IT 378242-06-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction; **NAALADase** inhibitors for treating retinal disorders and glaucoma)

RN 378242-06-9 HCAPLUS

CN [1,1'-Biphenyl]-2,3'-dicarboxylic acid, 3-(2-mercaptoethyl)-, 2-methyl ester (9CI) (CA INDEX NAME)



L102 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:886141 HCAPLUS

DN 136:15254

TI **Benzenedicarboxylic acid derivatives as NAALADase** inhibitors, their preparation, and their therapeutic useIN Jackson, Paul F.; Tsukamoto, Takashi; **Slusher, Barbara S.**; Wang, EricPA **Guilford Pharmaceuticals Inc., USA**

SO PCT Int. Appl., 112 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07F009-00

CC 1-12 (Pharmacology)

Section cross-reference(s): 9, 29, 63

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001092273	A2	20011206	WO 2001-US17309	20010529 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002019430	A1	20020214	US 2001-866758	20010530 <--
US 6452044	B2	20020917		
PRAI US 2000-207402P	P	20000530 <--		
OS	MARPAT 136:15254			
AB	The invention discloses <b>benzenedicarboxylic acid deriv. compds.</b> ;			

pharmaceutical compns., diagnostic methods, and diagnostic kits that include these compds.; and methods of using these compds. for inhibiting **NAALADase** enzyme activity, detecting diseases where **NAALADase** levels are altered, effecting neuronal activity, effecting TGF- $\beta$  activity, inhibiting angiogenesis, and treating glutamate abnormalities, neuropathy, pain, compulsive disorders, prostate diseases, cancers, and **glaucoma**.

- ST **benzenedicarboxylate** deriv prepn **NAALADase** inhibitor  
therapeutic diagnostic
- IT Nervous system  
(amyotrophic lateral sclerosis; **benzenedicarboxylic acid**  
derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)
- IT Alcoholism  
Analgesics  
Angiogenesis inhibitors  
Anti-ischemic agents  
Antidiabetic agents  
Antiparkinsonian agents  
Antipsychotics  
Antitumor agents  
Anxiolytics  
Cognition enhancers  
Diagnosis  
Drug delivery systems  
Drug dependence  
Nervous system agents  
Schizophrenia  
Test kits  
(**benzenedicarboxylic acid** derivs. as **NAALADase**  
inhibitors, prepn., and therapeutic use)
- IT Antitumor agents  
(brain; **benzenedicarboxylic acid** derivs. as **NAALADase**  
inhibitors, prepn., and therapeutic use)
- IT Mental disorder  
(compulsive disorder; **benzenedicarboxylic acid** derivs. as  
**NAALADase** inhibitors, prepn., and therapeutic use)
- IT Nerve, disease  
(degeneration; **benzenedicarboxylic acid** derivs. as  
**NAALADase** inhibitors, prepn., and therapeutic use)
- IT Nerve, disease  
(demyelination; **benzenedicarboxylic acid** derivs. as  
**NAALADase** inhibitors, prepn., and therapeutic use)
- IT Nerve, disease  
(diabetic neuropathy; **benzenedicarboxylic acid** derivs. as  
**NAALADase** inhibitors, prepn., and therapeutic use)
- IT Nervous system  
Prostate gland  
(disease; **benzenedicarboxylic acid** derivs. as  
**NAALADase** inhibitors, prepn., and therapeutic use)
- IT Brain, neoplasm  
Kidney, neoplasm  
Testis, neoplasm  
(inhibitors; **benzenedicarboxylic acid** derivs. as  
**NAALADase** inhibitors, prepn., and therapeutic use)
- IT Brain, disease  
Nerve, disease  
Spinal cord  
(injury; **benzenedicarboxylic acid** derivs. as  
**NAALADase** inhibitors, prepn., and therapeutic use)
- IT Diabetes mellitus  
(insulin-dependent, peripheral neuropathy or neuropathic pain from;  
**benzenedicarboxylic acid** derivs. as **NAALADase**  
inhibitors, prepn., and therapeutic use)

IT Antitumor agents  
(kidney; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT Prostate gland  
(neoplasm, inhibitors; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT Regeneration, animal  
(nerve; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT Nerve, disease  
(neuropathy, and neuropathic pain; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT Cytoprotective agents  
(neuroprotectants; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT Diabetes mellitus  
(non-insulin-dependent, peripheral neuropathy or neuropathic pain from; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT Chemicals  
Human immunodeficiency virus  
(peripheral neuropathy or neuropathic pain from; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT Vitamins  
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(peripheral neuropathy or neuropathic pain from; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT Nerve, disease  
(peripheral neuropathy; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT Antitumor agents  
(prostate gland; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT Nerve  
(regeneration; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT Brain, disease  
(stroke; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT Antitumor agents  
(testis; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT Brain, disease  
(trauma; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT Transforming growth factors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(.beta.-; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT Transforming growth factors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(.beta.1-; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT Transforming growth factors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(.beta.2-; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT 64-17-5, Ethanol, biological studies  
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(alc. dependence; **benzenedicarboxylic acid** derivs. as **NAALADase** inhibitors, prepn., and therapeutic use)

IT 50-36-2, Cocaine 54-11-5, Nicotine  
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(**benzenedicarboxylic** acid derivs. as **NAALADase**  
inhibitors, prepn., and therapeutic use)

IT 9074-87-7, **NAALADase**  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(**benzenedicarboxylic** acid derivs. as **NAALADase**  
inhibitors, prepn., and therapeutic use)

IT 25062-54-8P **377081-83-9P** 377081-92-0P  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)  
(**benzenedicarboxylic** acid derivs. as **NAALADase**  
inhibitors, prepn., and therapeutic use)

IT 57-27-2, Morphine, biological studies 99-31-0 528-44-9, 1,2,4-  
**Benzenetricarboxylic** acid 554-95-0, 1,3,5-  
**Benzenetricarboxylic** acid 586-35-6 610-29-7 618-83-7  
618-88-2 636-46-4 4315-09-7 6344-50-9 10312-55-7 19089-60-2  
21615-52-1 22326-31-4 52137-56-1 76784-92-4 143193-46-8  
173039-10-6 200123-75-7 200698-26-6 209470-89-3 254737-18-3  
267410-70-8 272128-61-7 272128-62-8 293761-62-3 377081-80-6  
377081-81-7 377081-82-8 377081-84-0 377081-85-1 377081-86-2  
377081-87-3 377081-88-4 377081-89-5 **377081-90-8**  
**377081-91-9** **377081-93-1** 377081-94-2 377081-95-3  
377081-96-4 **377081-97-5** 377081-98-6 377081-99-7  
377082-00-3 377082-01-4  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(**benzenedicarboxylic** acid derivs. as **NAALADase**  
inhibitors, prepn., and therapeutic use)

IT 56-86-0, L-Glutamic acid, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(glutamate abnormalities; **benzenedicarboxylic** acid derivs. as  
**NAALADase** inhibitors, prepn., and therapeutic use)

IT 185051-07-4P 377082-02-5P 377082-03-6P 377082-04-7P 377082-05-8P  
377082-06-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(prepn. and reaction; **benzenedicarboxylic** acid derivs. as  
**NAALADase** inhibitors, prepn., and therapeutic use)

IT 122-52-1, Triethylphosphite 358-23-6, Triflic anhydride 507-09-5,  
Thioacetic acid, reactions 2687-43-6, O-Benzylhydroxylamine  
hydrochloride 4105-93-5 5985-24-0 156750-11-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction; **benzenedicarboxylic** acid derivs. as  
**NAALADase** inhibitors, prepn., and therapeutic use)

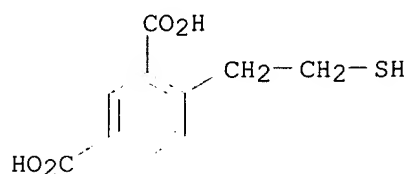
IT 9074-87-7, **NAALADase**  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(**benzenedicarboxylic** acid derivs. as **NAALADase**  
inhibitors, prepn., and therapeutic use)

RN 9074-87-7 HCAPLUS  
CN Hydrolase, .gamma.-glutamyl (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT **377081-83-9P**  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)  
(**benzenedicarboxylic** acid derivs. as **NAALADase**  
inhibitors, prepn., and therapeutic use)

RN 377081-83-9 HCAPLUS  
CN 1,3-Benzenedicarboxylic acid, 4-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



IT 377081-90-8 377081-91-9 377081-93-1

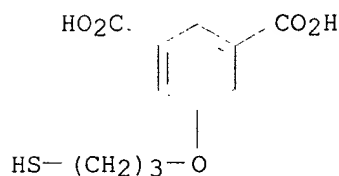
377081-97-5

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)

(benzenedicarboxylic acid derivs. as NAALADase  
inhibitors, prepn., and therapeutic use)

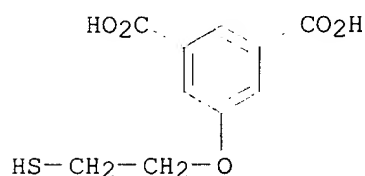
RN 377081-90-8 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-(3-mercaptopropoxy)- (9CI) (CA INDEX  
NAME)



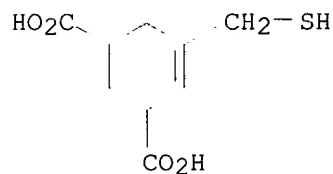
RN 377081-91-9 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-(2-mercaptoethoxy)- (9CI) (CA INDEX NAME)



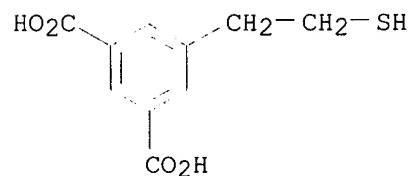
RN 377081-93-1 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-(mercaptomethyl)- (9CI) (CA INDEX NAME)



RN 377081-97-5 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



L102 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:885736 HCAPLUS

DN 136:15243

TI **NAALADase** inhibitors for treating amyotrophic lateral sclerosis

IN **Slusher, Barbara S.; Wozniak, Krystyna**

PA **Guilford Pharmaceuticals Inc., USA**

SO PCT Int. Appl., 79 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K031-00

CC 1-11 (Pharmacology)

Section cross-reference(s): 29, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001091738	A2	20011206	WO 2001-US17325	20010530 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 2002013295	A1	20020131	US 2001-866729	20010530 <--
PRAI	US 2000-207319P	P	20000530 <--		
OS	MARPAT 136:15243				
AB	The invention discloses pharmaceutical compns. and methods for treating amyotrophic lateral sclerosis using <b>NAALADase</b> inhibitors.				
ST	<b>NAALADase</b> inhibitor prepn amyotrophic lateral sclerosis				
IT	Drug delivery systems				
	Nervous system agents				
	(NAALADase inhibitors for treating amyotrophic lateral sclerosis)				
IT	Nervous system				
	(amyotrophic lateral sclerosis; <b>NAALADase</b> inhibitors for treating amyotrophic lateral sclerosis)				
IT	Metals, biological studies				
	RL: BSU (Biological study, unclassified); BIOL (Biological study) (metal-binding group-contg. acids; <b>NAALADase</b> inhibitors for treating amyotrophic lateral sclerosis)				
IT	Acids, biological studies				
	RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (metal-binding group-contg.; <b>NAALADase</b> inhibitors for treating amyotrophic lateral sclerosis)				
IT	<b>9074-87-7, Naaladase</b>				
	RL: BSU (Biological study, unclassified); BIOL (Biological study) ( <b>NAALADase</b> inhibitors for treating amyotrophic lateral sclerosis)				
IT	<b>377731-26-5P 377731-28-7P</b>				
	RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) ( <b>NAALADase</b> inhibitors for treating amyotrophic lateral sclerosis)				
IT	99-31-0 99-31-0D, enantiomers 528-44-9, 1,2,4-Benzenetricarboxylic acid 528-44-9D, 1,2,4-Benzenetricarboxylic acid, enantiomers 554-95-0, 1,3,5-Benzenetricarboxylic acid 554-95-0D, 1,3,5-Benzenetricarboxylic				

acid, enantiomers 586-35-6 586-35-6D, enantiomers 610-29-7  
 610-29-7D, enantiomers 618-83-7 618-83-7D, enantiomers 618-88-2  
 618-88-2D, enantiomers 636-46-4 636-46-4D, enantiomers 4315-09-7  
 4315-09-7D, enantiomers 6344-50-9 6344-50-9D, enantiomers 10312-55-7  
 10312-55-7D, enantiomers 19089-60-2 19089-60-2D, enantiomers  
 21615-52-1 21615-52-1D, enantiomers 22326-31-4 22326-31-4D,  
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 143193-46-8 143193-46-8D, enantiomers 173039-10-6 173039-10-6D,  
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 197630-80-1 197630-80-1D, enantiomers 197630-81-2 197630-81-2D,  
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 254737-18-3 254737-18-3D, enantiomers 254737-19-4 254737-19-4D,  
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 254737-23-0 254737-23-0D, enantiomers 254737-24-1 254737-24-1D,  
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 254737-28-5D, enantiomers 254737-29-6 254737-29-6D, enantiomers  
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 254737-33-2D, enantiomers 254737-34-3 254737-34-3D, enantiomers  
 254737-35-4 254737-35-4D, enantiomers 254737-36-5 254737-36-5D,  
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 293761-62-3 293761-62-3D, enantiomers 318480-81-8 318480-81-8D,  
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 377081-81-7D, enantiomers 377081-82-8 377081-82-8D, enantiomers  
**377081-83-9 377081-83-9D**, enantiomers 377081-84-0  
 377081-84-0D, enantiomers 377081-85-1 377081-85-1D, enantiomers  
 377081-86-2 377081-86-2D, enantiomers 377081-87-3 377081-87-3D,  
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 377081-96-4D, enantiomers **377081-97-5 377081-97-5D**,  
 enantiomers 377081-98-6 377081-98-6D, enantiomers 377081-99-7  
 377081-99-7D, enantiomers 377082-00-3 377082-00-3D, enantiomers  
 377082-01-4 377082-01-4D, enantiomers

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)

(**NAALADase** inhibitors for treating amyotrophic lateral  
 sclerosis)

IT 185051-07-4P 220464-68-6P 377082-02-5P 377082-03-6P 377082-04-7P  
 377082-05-8P 377082-06-9P 377731-27-6P 377731-29-8P 377731-30-1P  
 377731-31-2P 377731-32-3P 377731-33-4P 377731-34-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)

(prepn. and reaction; **NAALADase** inhibitors for treating  
 amyotrophic lateral sclerosis)

IT 122-52-1, Triethyl phosphite 358-23-6, Triflic anhydride 507-09-5,  
 Thioacetic acid, reactions 1003-42-5 2687-43-6, O-Benzylhydroxylamine  
 hydrochloride 4105-93-5 5985-24-0 7486-35-3, Tributyl(vinyl)tin  
 16308-65-9 91367-05-4 156750-11-7



RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction; **NAALADase** inhibitors for treating amyotrophic lateral sclerosis)

IT 9074-87-7, **Naaladase**

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(**NAALADase** inhibitors for treating amyotrophic lateral sclerosis)

RN 9074-87-7 HCAPLUS

CN Hydrolase, .gamma.-glutamyl (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

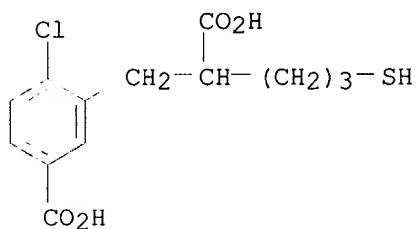
IT 377731-26-5P 377731-28-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(**NAALADase** inhibitors for treating amyotrophic lateral sclerosis)

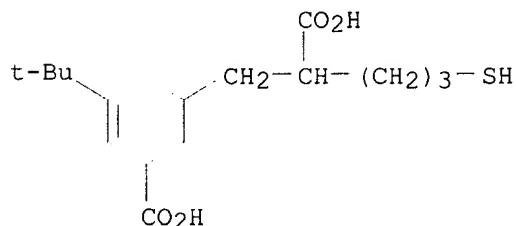
RN 377731-26-5 HCAPLUS

CN Benzenepropanoic acid, 5-carboxy-2-chloro-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



RN 377731-28-7 HCAPLUS

CN Benzenepropanoic acid, 3-carboxy-5-(1,1-dimethylethyl)-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



IT 377081-83-9 377081-83-9D, enantiomers

377081-90-8 377081-90-8D, enantiomers

377081-91-9 377081-91-9D, enantiomers

377081-93-1 377081-93-1D, enantiomers

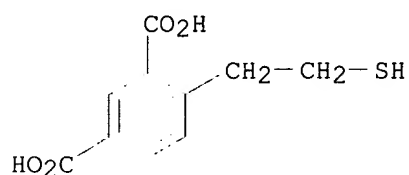
377081-97-5 377081-97-5D, enantiomers

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

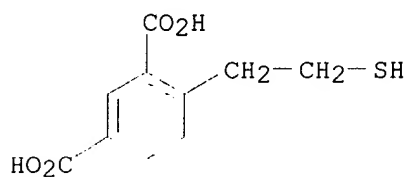
(**NAALADase** inhibitors for treating amyotrophic lateral sclerosis)

RN 377081-83-9 HCAPLUS

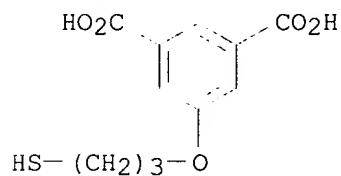
CN 1,3-Benzenedicarboxylic acid, 4-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



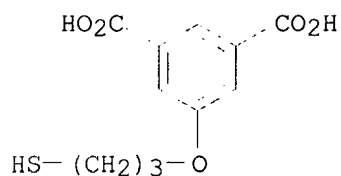
RN 377081-83-9 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, 4-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



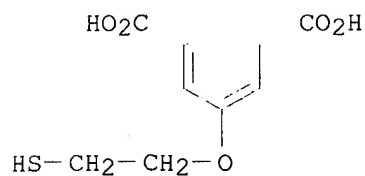
RN 377081-90-8 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, 5-(3-mercaptopropoxy)- (9CI) (CA INDEX NAME)



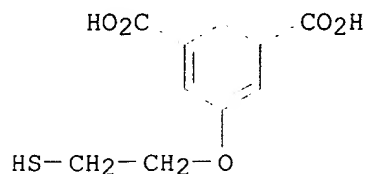
RN 377081-90-8 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, 5-(3-mercaptopropoxy)- (9CI) (CA INDEX NAME)



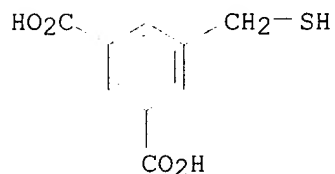
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 CN 1,3-Benzenedicarboxylic acid, 5-(2-mercaptoethoxy)- (9CI) (CA INDEX NAME)



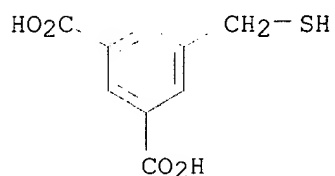
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 CN 1,3-Benzenedicarboxylic acid, 5-(2-mercaptoethoxy)- (9CI) (CA INDEX NAME)



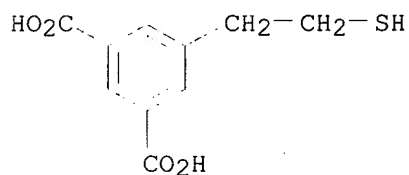
RN 377081-93-1 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, 5-(mercaptomethyl)- (9CI) (CA INDEX NAME)



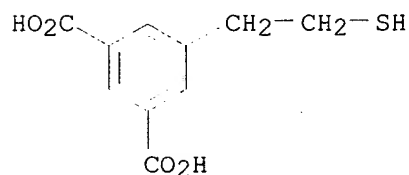
RN 377081-93-1 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, 5-(mercaptomethyl)- (9CI) (CA INDEX NAME)



RN 377081-97-5 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, 5-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



RN 377081-97-5 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, 5-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



L102 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:661726 HCAPLUS

DN 134:25288

TI N-acetylated-.alpha.-linked-  
 acidic dipeptidase inhibitor has a neuroprotective  
 effect on mouse retinal ganglion cells after pressure-induced

ischemia

AU Harada, C.; Harada, T.; **Slusher, B. S.**; Yoshida, K.; Matsuda, H.; Wada, K.

CS Department of Degenerative Neurological Diseases, National Institute of Neuroscience, National Center of Neurology and Psychiatry, Kodaira, Tokyo, 187-8502, Japan

SO Neuroscience Letters (2000), 292(2), 134-136  
CODEN: NELED5; ISSN: 0304-3940

PB Elsevier Science Ireland Ltd.

DT Journal

LA English

CC 1-11 (Pharmacology)  
Section cross-reference(s): 14

AB Excessive glutamate receptor activation is thought to be involved in the **retinal** ganglion cell (RGC) death after ischemic injury. In this study, we examd. the effect of 2-PMPA (2-(phosphonomethyl)pentanedioic acid) on RGC survival in an ischemia-reperfusion model using C57BL/6 mouse eyes. 2-PMPA is a **NAALADase (N-acetylated-.alpha.-linked-acidic dipeptidase)** inhibitor, an enzyme responsible for the hydrolysis of the neuropeptide NAAG (N-acetyl-aspartyl-glutamate) to N-acetyl-aspartate and glutamate. 100 mg/kg 2-PMPA were given with i.p. injections 30 min before ischemia followed per h injection for 3 h. 2-PMPA increased surviving RGCs as well as **retinal** thickness after pressure-induced **retinal** ischemia. In addn., neuroprotection afforded by 2-PMPA was greater than that of N-methyl-d-aspartate receptor blocker. These data indicate that **NAALADase** inhibition may be useful in **retinal** disorders in which excessive amino acid transmission is pathogenic.

ST dipeptidase inhibitor PMPA **retinal** ischemia

IT Glutamate receptors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(2-PMPA has a neuroprotective effect on mouse **retinal** ganglion cells after pressure-induced ischemia)

IT **Eye**  
(**ganglion cell**; 2-PMPA has a neuroprotective effect on mouse **retinal ganglion cells** after pressure-induced ischemia)

IT Cytoprotective agents  
(neuroprotectants; 2-PMPA has a neuroprotective effect on mouse **retinal** ganglion cells after pressure-induced ischemia)

IT **Eye, disease**  
(**retina, ischemia**; 2-PMPA has a neuroprotective effect on mouse **retinal ganglion cells** after pressure-induced ischemia)

IT 173039-10-6, Pentanedioic acid, 2-(phosphonomethyl)  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(2-PMPA has a neuroprotective effect on mouse **retinal** ganglion cells after pressure-induced ischemia)

IT **9074-87-7, N-Acetylated-.alpha.-linked acidic dipeptidase**  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(inhibitor; 2-PMPA has a neuroprotective effect on mouse **retinal** ganglion cells after pressure-induced ischemia)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Harada, T; Neuron 2000, V26, P533 HCAPLUS

(2) Harada, T; Proc Natl Acad Sci USA 1998, V95, P4663 HCAPLUS

(3) Kashii, S; J Jpn Ophthalmol Soc 1995, V99, P1361 HCAPLUS

(4) Kristian, T; Stroke 1998, V29, P705 MEDLINE

- (5) Lagreze, W; Invest Ophthalmol Vis Sci 1998, V39, P1063 MEDLINE
- (6) Lipton, S; N Engl J Med 1994, V330, P613 HCAPLUS
- (7) Perry, V; Neuroscience 1981, V6, P931 MEDLINE
- (8) Puttfarcken, P; J Pharmacol Exp Ther 1993, V266, P796 HCAPLUS
- (9) Slusher, B; Nat Med 1999, V5, P1396 HCAPLUS
- (10) Stauch, B; Neurosci Lett 1989, V100, P295 HCAPLUS
- (11) Sugawara, T; J Jpn Ophthalmol Soc 1992, V96, P90 HCAPLUS
- (12) Tsai, G; Brain Res 1991, V518, P313
- (13) Weinreb, R; Arch Ophthalmol 1999, V117, P1540 MEDLINE

IT 9074-87-7, N-Acetylated-.alpha.-

linked acidic dipeptidase

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(inhibitor; 2-PMPA has a neuroprotective effect on mouse

retinal ganglion cells after pressure-induced ischemia)

RN 9074-87-7 HCAPLUS

CN Hydrolase, .gamma.-glutamyl (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L102 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:750684 HCAPLUS

DN 132:149416

TI Glutamate carboxypeptidase II is expressed by

astrocytes in the adult rat nervous system

AU Berger, Urs V.; Luthi-Carter, Ruth; Passani, Lucius A.; Elkabes, Stella; Black, Ira; Konradi, Christine; Coyle, Joseph T.

CS Department of Medicine, Brigham and Women's Hospital, Boston, MA, 02115, USA

SO Journal of Comparative Neurology (1999), 415(1), 52-64

CODEN: JCNEAM; ISSN: 0021-9967

PB Wiley-Liss, Inc.

DT Journal

LA English

CC 13-1 (Mammalian Biochemistry)

Section cross-reference(s): 14

AB The enzyme glutamate carboxypeptidase II (GCP II) has

been cloned from rat brain and human prostate. This enzyme, which catabolizes the neuropeptide N-acetylaspartylglutamate, has also been known as N-acetylated .alpha.-linked

acidic dipeptidase (NAALADase), and is

identical to the prostate-specific membrane

antigen and to the jejunal folylpoly-.gamma.-

glutamate carboxypeptidase. The goals of the present

study were to elucidate the cell specificity and regional pattern of GCP

II expression in the rat nervous system by using Northern blots and

enzymic assays of brain and subfractionated primary neuronal and glial

cultures together with in situ hybridization histochem. (ISHH) in sections

of adult rat tissue. GCP II activity was assayed in astrocyte cultures

(4.4 pmol/mg protein per min), neuronal-glial cocultures (2.5 pmol/mg

protein per min) and neuron-enriched cultures (0.38 pmol/mg protein per

min), with the activity in each prepn. correlating to its astrocytic

content (r = 0.99). No activity was detected in cultured oligodendrocytes

or microglia. Northern blots probed with a GCP II cDNA detected mRNAs

exclusively in activity-pos. cell preps. ISHH results show that GCP II

is expressed by virtually all astrocytes, by Bergmann glial cells in

cerebellum, by Muller cells in retina and by the satellite cells

in dorsal root ganglia. Astrocytes in select groups of nuclei (e.g.,

habenula, supraoptic nucleus, pontine nucleus) contained pronounced levels

of GCP II message. The data of the present study suggest that GCP II is

expressed in the adult rat nervous system exclusively in astrocytic glial cells.

- ST **glutamate carboxypeptidase II** gene expression  
astrocyte glia neuron injury
- IT Neuroglia  
(Bergmann's cell, cerebellum, GCPII in; **glutamate carboxypeptidase II** (GCPII) is expressed by astrocytes in adult rat nervous system and its expression is stimulated in striatal astrocytes after neuronal injury)
- IT Eye  
(Muller's cell, GCPII in; **glutamate carboxypeptidase II** (GCPII) is expressed by astrocytes in adult rat nervous system and its expression is stimulated in striatal astrocytes after neuronal injury)
- IT Brain  
(cerebellum, Bergmann glial cells, GCPII in; **glutamate carboxypeptidase II** (GCPII) is expressed by astrocytes in adult rat nervous system and its expression is stimulated in striatal astrocytes after neuronal injury)
- IT Brain  
(corpus striatum; **glutamate carboxypeptidase II** (GCPII) is expressed by astrocytes in adult rat nervous system and its expression is stimulated in striatal astrocytes after neuronal injury)
- IT Astrocyte  
(**glutamate carboxypeptidase II** (GCPII) is expressed by astrocytes in adult rat nervous system and its expression is stimulated in striatal astrocytes after neuronal injury)
- IT mRNA  
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)  
(**glutamate carboxypeptidase II**; **glutamate carboxypeptidase II** (GCPII) is expressed by astrocytes in adult rat nervous system and its expression is stimulated in striatal astrocytes after neuronal injury)
- IT Gene, animal  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(**glutamate carboxypeptidase II**; **glutamate carboxypeptidase II** (GCPII) is expressed by astrocytes in adult rat nervous system and its expression is stimulated in striatal astrocytes after neuronal injury)
- IT Nerve, disease  
(injury; **glutamate carboxypeptidase II** (GCPII) is expressed by astrocytes in adult rat nervous system and its expression is stimulated in striatal astrocytes after neuronal injury)
- IT Nerve  
(neuron; **glutamate carboxypeptidase II** (GCPII) is expressed by astrocytes in adult rat nervous system and its expression is stimulated in striatal astrocytes after neuronal injury)
- IT Ganglion  
(satellite cell, dorsal root ganglia, GCPII in; **glutamate carboxypeptidase II** (GCPII) is expressed by astrocytes in adult rat nervous system and its expression is stimulated in striatal astrocytes after neuronal injury)
- IT Ganglion  
(spinal, satellite cell, GCPII in; **glutamate carboxypeptidase II** (GCPII) is expressed by astrocytes in adult rat nervous system and its expression is stimulated in striatal astrocytes after neuronal injury)
- IT 9074-87-7, **Glutamate carboxypeptidase II**  
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)  
(**glutamate carboxypeptidase II** (GCPII) is expressed by astrocytes in adult rat nervous system and its expression is stimulated in striatal astrocytes after neuronal injury)

RE.CNT 43      THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Adams, J; J Histochem Cytochem 1992, V40, P1457 HCAPLUS
- (2) Berger, U; Anat Embryol 1998, V198, P13 MEDLINE
- (3) Berger, U; Anat Embryol 1998, V197, P405 MEDLINE
- (4) Berger, U; Anat Embryol 1999, V199, P439 MEDLINE
- (5) Berger, U; J Neurocytol 1995, V24, P99 HCAPLUS
- (6) Berger, U; J Neurocytol 1996, V25, P429
- (7) Blakely, R; J Neurochem 1988, V50, P1200 HCAPLUS
- (8) Bzdega, T; J Neurochem 1997, V69, P2270 HCAPLUS
- (9) Carter, R; Proc Natl Acad Sci USA 1996, V93, P749 HCAPLUS
- (10) Cassidy, M; Neuropeptides 1993, V24, P271 HCAPLUS
- (11) Chirgwin, J; Biochemistry 1979, V16, P5294
- (12) Cole, R; Neuron 1995, V14, P813 HCAPLUS
- (13) Coyle, J; Neurobiol Dis 1997, V4, P231 HCAPLUS
- (14) Danbolt, N; Neuroscience 1992, V51, P295 HCAPLUS
- (15) Dieck, S; Glia 1999, V25, P10 MEDLINE
- (16) Elkabes, S; J Neurosci Res 1998, V54, P117 HCAPLUS
- (17) Fuhrman, S; J Neurochem 1994, V62, P27
- (18) Guarda, A; Mol Brain Res 1988, V3, P223 HCAPLUS
- (19) Halsted, C; J Biol Chem 1998, V273, P20417 HCAPLUS
- (20) Israeli, R; Cancer Res 1993, V53, P227 HCAPLUS
- (21) Luthi-Carter, R; Brain Res 1998, V795, P341 HCAPLUS
- (22) Luthi-Carter, R; J Pharmacol Exp Ther 1998, V286, P1020 HCAPLUS
- (23) Luthi-Carter, R; Proc Natl Acad Sci USA 1998, V95, P3215 HCAPLUS
- (24) McCarthy, K; J Cell Biol 1980, V85, P890 HCAPLUS
- (25) McKinnon, R; J Cell Biol 1993, V121, P1397 HCAPLUS
- (26) Meyerhoff, J; Brain Res 1992, V593, P140 HCAPLUS
- (27) O'Malley, E; Brain Res 1994, V647, P83 HCAPLUS
- (28) Pangalos, M; J Biol Chem 1999, V274, P8470 HCAPLUS
- (29) Passani, L; Brain Res 1998, V794, P143 HCAPLUS
- (30) Puttfarcken, P; J Pharmacol Exp Ther 1993, V266, P796 HCAPLUS
- (31) Rawlings, N; Biochim Biophys Acta 1997, V1339, P247 HCAPLUS
- (32) Robinson, M; J Biol Chem 1987, V262, P14498 HCAPLUS
- (33) Rothstein, J; Ann Neurol 1990, V28, P18 HCAPLUS
- (34) Schaeren-Wiemers, N; Histochemistry 1993, V100, P431 HCAPLUS
- (35) Shneider, B; J Biol Chem 1997, V272, P31006 HCAPLUS
- (36) Slusher, B; J Biol Chem 1990, V265, P21297 HCAPLUS
- (37) Slusher, B; J Comp Neurol 1992, V315, P217 HCAPLUS
- (38) Speno, H; Mol Pharmacol 1999, V55, P179 HCAPLUS
- (39) Tsai, G; Arch Gen Psychiatry 1995, V52, P829 HCAPLUS
- (40) Tsai, G; Brain Res 1991, V556, P151 HCAPLUS
- (41) Wang, H; Am J Physiol 1998, V275, PC967 HCAPLUS
- (42) Wroblewska, B; Glia 1998, V24, P172 MEDLINE
- (43) Wroblewska, B; J Neurochem 1993, V61, P943 HCAPLUS

IT 9074-87-7, **Glutamate carboxypeptidase II**

RL: BOC (Biological occurrence); BSU (Biological study, unclassified);

BIOL (Biological study); OCCU (Occurrence)

(**glutamate carboxypeptidase II** (GCP<sup>II</sup>) is expressed

by astrocytes in adult rat nervous system and its expression is  
stimulated in striatal astrocytes after neuronal injury)

RN 9074-87-7 HCAPLUS

CN Hydrolase, .gamma.-glutamyl (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L102 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2003 ACS

AN 1992:511282 HCAPLUS

DN 117:111282

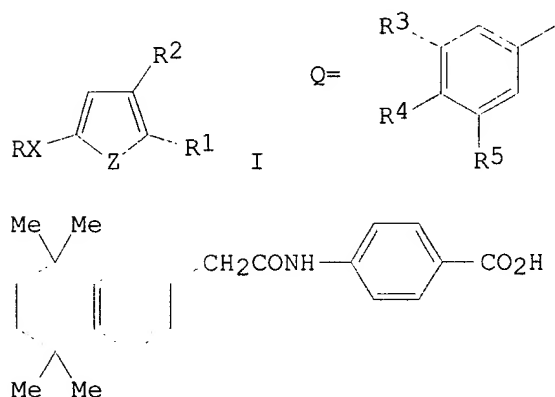
TI Preparation and formulation of (5,6,7,8-tetrahydronaphthylacetamido)benzoates and analogs as drugs

IN Bernardon, Jean Michel; Pilgrim, William Robert

PA Centre International de Recherches Dermatologiques Galderma, Fr.

SO PCT Int. Appl., 77 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA French  
 IC ICM C07C069-86  
 ICS C07C069-76; C07C233-76; A61K031-215; A61K031-19; A61K007-00;  
 C07C327-20; C07C069-96  
 CC 25-24 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)  
 Section cross-reference(s): 1, 63  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9206948	A1	19920430	WO 1991-FR793	19911011 <--
	W: AU, CA, FI, HU, JP, KP, KR, NO, PL, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
	AU 9188720	A1	19920520	AU 1991-88720	19911011 <--
	AU 646314	B2	19940217		
	ZA 9108126	A	19920624	ZA 1991-8126	19911011 <--
	EP 552282	A1	19930728	EP 1991-919625	19911011 <--
	EP 552282	B1	19940824		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE				
	JP 06502408	T2	19940317	JP 1991-518163	19911011 <--
	JP 3197011	B2	20010813		
	ES 2060413	T3	19941116	ES 1991-919625	19911011 <--
	US 5387594	A	19950207	US 1992-859522	19920804 <--
	US 5439925	A	19950808	US 1993-167145	19931216 <--
	US 5567721	A	19961022	US 1995-430622	19950428 <--
	US 5597839	A	19970128	US 1995-430615	19950428 <--
	US 5668156	A	19970916	US 1995-430613	19950428 <--
	US 5688817	A	19971118	US 1995-430612	19950428 <--
PRAI	LU 1990-87821	A	19901012	<--	
	WO 1991-FR793	A	19911011	<--	
	US 1992-859522	A3	19920804	<--	
	US 1993-167145	A3	19931216	<--	
OS	MARPAT 117:111282				
GI					



AB Title compds. [I; R = aryl group Q; R1 = H, OH, Me, CH<sub>2</sub>OH, CO<sub>2</sub>H, alkanoyl, etc.; R2 = H, OH, alkyl, alkoxy, F, Cl, CF<sub>3</sub>, CH<sub>2</sub>OH, etc.; R3, R5 = H, OH, (cyclo) alkyl, alkoxy, etc.; R4 = groups cited for R3, F, Cl, alkylthio, etc.; R3R4 = CMe<sub>2</sub>(CH<sub>2</sub>)<sub>n</sub>CMe<sub>2</sub>; X = CH<sub>2</sub>CONH, CO<sub>2</sub>CH<sub>2</sub>, O<sub>2</sub>CO, O<sub>2</sub>CNH, COCH<sub>2</sub>O, etc.; Z = O, S, CH:CH, N:CH, etc.; n = 1, 2] were prepd. as ophthalmic, dermatol., and respiratory agents, etc. (no data). Thus,



5,6,7,8-tetrahydro-5,5,8,8-tetramethylnaphthalene was acylated by ClCOCO2Et and the sapon. product subjected to Wolff-Kishner redn. to give, after SOCl2 treatment, the naphthylacetyl chloride which was condensed with 4-H2NC6H4CO2CH2CH:CH2 (prepn. given) to give, after (Ph3P)4Pd/morpholine treatment, title compd. II.

ST naphthylacetamidobenzoate prepn drug; dermatol naphthylacetamidobenzoate prepn; antirheumatic naphthylacetamidobenzoate prepn; ophthalmic naphthylacetamidobenzoate prepn; respiratory naphthylacetamidobenzoate prepn

IT **Eye, disease**

Lung, disease

Skin, disease

(treatment of, (tetrahydronaphthylacetamido)benzoates and analogs for)

IT Inflammation inhibitors

(antirheumatics, (tetrahydronaphthylacetamido)benzoates and analogs)

IT 1026-92-2P, Diallylterephthalate 14386-64-2P 30095-49-9P

39088-65-8P 52010-97-6P, 4-Hydroxymethylbenzaldehyde

62507-78-2P 67853-01-4P 74044-40-9P 78767-55-2P 80235-10-5P

106420-93-3P 116233-28-4P 142650-43-9P 142650-44-0P 142650-45-1P

142650-46-2P 142650-47-3P 142650-48-4P 142650-49-5P 142650-50-8P

142650-51-9P 142650-53-1P 142650-54-2P 142650-55-3P 142650-56-4P

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142650-62-2P 142650-63-3P 142650-64-4P 142650-65-5P 142650-66-6P

142650-67-7P 142650-68-8P 142650-69-9P 142650-70-2P 142650-71-3P

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142650-82-6P 142650-83-7P 142650-84-8P 142650-85-9P 142650-86-0P

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142650-97-3P 142650-98-4P 142650-99-5P 142651-00-1P 142651-01-2P

142651-02-3P 142651-03-4P 142651-04-5P 142651-05-6P 142651-06-7P

142651-07-8P 142651-09-0P 142651-10-3P 142651-12-5P 142651-14-7P

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142651-32-9P 142651-33-0P 142651-35-2P 142651-36-3P 142651-37-4P

142651-38-5P 142651-41-0P 142651-42-1P 142651-44-3P 142651-49-8P

142651-50-1P 142651-51-2P 142651-53-4P 142651-55-6P 142651-57-8P

142651-58-9P 142675-64-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, in prepn. of drugs)

IT 139611-74-8P 139611-75-9P 139611-76-0P 139611-77-1P 139611-78-2P

139611-80-6P 139611-81-7P 139642-37-8P 142414-06-0P 142650-22-4P

142650-23-5P 142650-24-6P 142650-25-7P 142650-26-8P 142650-27-9P

142650-28-0P 142650-29-1P 142650-30-4P 142650-31-5P 142650-32-6P

142650-33-7P 142650-34-8P 142650-35-9P 142650-36-0P 142650-37-1P

142650-38-2P 142650-39-3P 142650-40-6P 142650-41-7P 142650-42-8P

142651-08-9P 142651-11-4P 142651-13-6P 142651-15-8P 142651-16-9P

142651-18-1P 142651-21-6P 142651-22-7P 142651-23-8P 142651-26-1P

142651-27-2P 142651-28-3P 142651-29-4P 142651-30-7P 142651-34-1P

142651-39-6P 142651-40-9P 142651-43-2P 142651-45-4P 142651-46-5P

142651-47-6P 142651-48-7P 142651-52-3P 142651-56-7P 142651-59-0P

142706-02-3P 142881-23-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. of, as drug)

IT 94-09-7, Ethyl-4-aminobenzoate 94-18-8, Benzyl-4-hydroxybenzoate 95-01-2, 2,4-Dihydroxybenzaldehyde 100-39-0, Benzyl bromide 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 120-61-6, Dimethyl-p-phthalate 366-84-7, Ethyl-4-aminomethylbenzoate 503-38-8 586-89-0, 4-Acetylbenzoic acid 591-20-8, 3-Bromophenol 619-58-9, 4-Iodobenzoic acid 619-66-9, 4-Formylbenzoic acid 623-05-2 768-95-6, 1-Adamantanol 1679-64-7, 4-(Methoxycarbonyl)benzoic acid 1710-98-1,

4-tert-Butylbenzoyl chloride 3147-39-5, Methyl-2,4,6-trihydroxybenzoate  
 4565-31-5 4755-77-5 5292-43-3, tert-Butyl-2-bromoacetate 6683-46-1  
 14199-15-6, Methyl-4-hydroxyphenylacetate 18469-52-8,  
 Methyl-4-aminomethylbenzoate 22824-31-3 25804-49-3,  
 tert-Butyl-4-hydroxybenzoate 40056-43-7 54685-31-3 69251-25-8  
 79557-90-7, Benzyl-2,4-dihydroxybenzoate 92050-16-3 103031-30-7  
 104224-50-2 104224-62-6 104224-63-7 104224-64-8 104224-76-2  
 132392-28-0 142651-31-8 142651-54-5

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, in prepn. of drugs)

IT 39088-65-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)

(prepn. and reaction of, in prepn. of drugs)

RN 39088-65-8 HCAPLUS

CN Benzoic acid, 4-(mercaptomethyl)- (9CI) (CA INDEX NAME)



L102 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2003 ACS

AN 1991:656016 HCAPLUS

DN 115:256016

TI Preparation of diarylstyrylquinoline diacids as leukotriene antagonists

IN Young, Robert N.; Gauthier, Jacques Yves; Zamboni, Robert; Belley, Michel  
 L.

PA Merck Frosst Canada, Inc., Cote d'Ivoire

SO Eur. Pat. Appl., 144 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C07D215-18

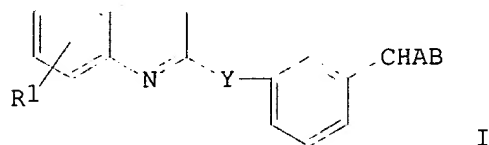
ICS C07D215-14; C07D215-20; C07D215-36; C07D401-12; C07D405-12;  
 C07D409-10; A61K031-47

CC 27-17 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 1, 63

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 399818	A1	19901128	EP 1990-305640	19900523 <--
	EP 399818	B1	19950816		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	US 5104882	A	19920414	US 1990-527236	19900522 <--
	CA 2017376	AA	19901124	CA 1990-2017376	19900523 <--
	NO 9002301	A	19901126	NO 1990-2301	19900523 <--
	AU 9055811	A1	19901213	AU 1990-55811	19900523 <--
	ZA 9003983	A	19910327	ZA 1990-3983	19900523 <--
	JP 03072459	A2	19910327	JP 1990-132754	19900524 <--
	JP 07103107	B4	19951108		
	US 5204358	A	19930420	US 1992-818598	19920109 <--
PRAI	US 1989-356478		19890524	<--	
	US 1987-125050		19871125	<--	
	US 1988-275160		19881122	<--	
	US 1990-527236		19900522	<--	
OS	MARPAT 115:256016				
GI					



- AB Title compds. I [R1 = 7-Cl, 7-MeO, 6-F3C, 7-F3C, 6-MeSO2, H, 6,7-Cl2; Y = CH:CH, CH2CH2, CH2O, CHMeCH2; A = HO2C(CH2)2S, Me2NCO(CH2)2S, 3-(HO2C)C6H4S, Me3CNHCO(CH2)2S, 4-carboxy-2-pyridyl, [(1-adamantylamino)carbonyl]ethylthio, 1-tetrazol-5-ylmethylthio, etc.; B = 2-(HO2C)C6H4CH2CH2, 3-(HO2C)C6H4, 5-carboxy-2-thiophenyl, HO2CCH2CHMe(CH2)2, 6-carboxy-2-pyridyl, 2-(Me3CNHCO)C6H4S, 3-[(1-tetrazol-5-yl)methyl]phenyl, etc.] and their salts, useful as inhibitors of leukotriene biosynthesis, antiasthmatic, antiallergic, antiinflammatory, and cytoprotective agents (no data, assays described), are prepd. I may also be used to treat erosive gastritis, inflammatory bowel disease, prevention of SRA-release (no data). To a suspension of [(7-chloroquinolin-2-yl)methyl]triphenylphosphonium bromide in THF was added BuLi, the reaction mixt. was stirred at -78.degree. and Me 2-[3-[2-(methoxycarbonyl)ethylthio]-3-(3-formylphenyl)propyl]benzoate [prepn. from 3-(BrCH2)C6H4CN given] added, the mixt. warmed to room temp. to give I [R1 = 7-Cl; Y = CH:CH; A = HO2C(CH2)2S; B = 2-(HO2C)C6H4CH2CH2] (II) as the di-Me ester, which in THF and MeOH was sapond. to give II.2Na salt. A capsule, injectable suspension and tablet formulations comprising I are given. Pharmaceutical compn. of I may comprise an addnl. active ingredient such as nonsteroidal antiinflammatory drug, peripheral analgesic, cyclooxygenase inhibitor, etc.
- ST arylstyrylquinoline diacid prepn leukotriene antagonist; cytoprotection arylstyrylquinoline diacid; eye antiinflammatory arylstyrylquinoline diacid; antiasthmatic arylstyrylquinoline diacid; SRSA inhibitor arylstyrylquinoline diacid prepn
- IT Leukotrienes  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(antagonists, diarylstyrylaniline diacids)
- IT Prostaglandins  
Thromboxanes  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(antagonists, leukotriene antagonists contg.)
- IT Antihistaminics  
(leukotriene antagonists contg.)
- IT Inflammation inhibitors  
(nonsteroidal, leukotriene antagonists contg.)
- IT Slow-reacting substances, anaphylactic  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(release of, inhibition of, diarylstyrylquinoline diacids for)
- IT Antihistaminics  
(H2, leukotriene antagonists contg.)
- IT Bronchodilators  
(antiasthmatics, diarylstyrylquinoline diacids)
- IT **Eye, disease or disorder**  
(inflammation, treatment of, diarylstyrylquinoline diacids for)
- IT Stomach  
(mucosa, protection of, diarylstyrylquinoline diacids for)
- IT Analgesics  
(peripheral, leukotriene antagonists contg.)
- IT 1779-49-3  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(Wittig reaction of, with methoxybenzaldehyde)

IT 7398-63-2, Dimethylaluminum dimethylamide  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(amidation by, of benzoate ester)

IT 14694-95-2  
RL: CAT (Catalyst use); USES (Uses)  
(catalyst, for redn. of propanylbenzamide deriv.)

IT 100-42-5, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(hydrolysis and conversion to propylaniline)

IT 9015-82-1, Angiotensin-converting enzyme 39391-18-9, Cyclooxygenase  
61276-89-9, Thromboxane synthetase  
RL: USES (Uses)  
(inhibitors, leukotriene antagonists contg.)

IT 80-62-6P 91-63-4P 100-80-1P 1783-81-9P 4892-02-8P 6165-54-4P  
6302-65-4P 6542-60-5P, Cyclopropaneacetonitrile 19641-29-3P  
24722-19-8P 26473-47-2P 32017-77-9P 39590-81-3P,  
1,1-Cyclopropanedimethanol 42392-67-6P 42392-68-7P 51130-00-8P  
52178-50-4P 54051-19-3P 62778-80-7P 68348-23-2P 70097-48-2P  
71063-12-2P 72886-42-1P 79473-56-6P 96685-20-0P 115104-44-4P  
115104-45-5P 117843-17-1P 117843-18-2P 117843-19-3P 119327-59-2P  
119327-67-2P 119327-69-4P 119327-76-3P 124037-86-1P 124037-87-2P  
124037-90-7P 124037-91-8P 124037-93-0P 124037-95-2P 124037-96-3P  
124037-97-4P 124037-98-5P 124037-99-6P 124038-00-2P 124038-01-3P  
124038-02-4P 124038-03-5P 124038-04-6P 124038-06-8P 124038-07-9P  
124038-08-0P 124038-09-1P 124038-10-4P 124038-11-5P 124038-12-6P  
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124038-32-0P 124038-33-1P 124038-34-2P 124038-37-5P 124038-39-7P  
124038-40-0P 124038-41-1P 124038-43-3P 124038-49-9P 124038-50-2P  
124038-52-4P 124038-54-6P 124038-55-7P 124038-58-0P 124061-80-9P  
124061-81-0P 124061-83-2P 124679-02-3P 133768-71-5P 133772-18-6P  
133772-19-7P 133772-20-0P 133772-21-1P 133772-22-2P 133772-23-3P  
133772-24-4P 133772-25-5P 133772-26-6P 133772-27-7P 133772-28-8P  
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133772-35-7P 133772-36-8P 133772-37-9P 133772-38-0P 133772-39-1P  
133772-40-4P 133772-42-6P 133772-43-7P 133772-44-8P 133772-45-9P  
133772-46-0P 133772-47-1P 133772-48-2P 133772-49-3P 133772-50-6P  
133772-51-7P 133772-52-8P 133772-53-9P 133772-54-0P 133772-55-1P  
133772-56-2P 133772-57-3P 133772-58-4P 133772-59-5P 133772-60-8P  
133772-61-9P 133772-62-0P 133772-63-1P 133772-64-2P 133772-65-3P  
133772-66-4P 133772-67-5P 133772-68-6P 133772-69-7P 133772-70-0P  
133772-71-1P 133772-72-2P 133772-73-3P 133772-74-4P 133772-75-5P  
133772-76-6P 133772-77-7P 133772-78-8P 133772-79-9P 133772-80-2P  
133772-81-3P 133772-82-4P 133772-87-9P 133791-14-7P 133791-15-8P  
133791-16-9P 133791-17-0P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(prepn. and reaction of, on prepn. of leukotriene antagonists)

IT 124036-75-5P 124036-76-6P 124036-77-7P 124036-78-8P 124036-79-9P  
124036-80-2P 124036-81-3P 124036-82-4P 124036-83-5P 124036-84-6P  
124036-85-7P 124036-86-8P 124036-87-9P 124036-88-0P 124036-89-1P  
124036-90-4P 124036-91-5P 124036-92-6P 124036-93-7P 124036-94-8P  
124036-95-9P 124036-96-0P 124036-97-1P 124036-98-2P 124036-99-3P  
124037-00-9P 124037-02-1P 124037-03-2P 124037-04-3P 124037-05-4P  
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124037-36-1P 124037-37-2P 124037-38-3P 124037-39-4P 124037-40-7P  
124037-41-8P 124037-42-9P 124037-43-0P 124037-44-1P 124037-45-2P

124037-46-3P	124037-47-4P	124037-48-5P	124037-49-6P	124037-50-9P
124037-51-0P	124037-52-1P	124037-53-2P	124037-54-3P	124037-55-4P
124037-56-5P	124037-57-6P	124037-58-7P	124037-59-8P	124037-60-1P
124037-61-2P	124037-62-3P	124037-63-4P	124061-73-0P	124061-74-1P
124061-75-2P	124061-76-3P	124061-77-4P	124061-78-5P	124061-79-6P
133768-61-3P	133768-62-4P	133768-63-5P	133768-64-6P	133768-65-7P
133768-66-8P	133768-67-9P	133768-68-0P	133768-69-1P	133768-70-4P
133768-71-5P	133768-72-6P	133768-73-7P	133768-74-8P	133768-75-9P
133768-76-0P	133768-77-1P	133768-78-2P	133768-79-3P	133768-80-6P
133768-81-7P	133768-82-8P	133768-83-9P	133768-84-0P	133768-85-1P
133768-86-2P	133768-87-3P	133768-88-4P	133768-89-5P	133768-90-8P
133768-91-9P	133768-92-0P	133768-93-1P	133768-94-2P	133768-95-3P
133768-96-4P	133768-97-5P	133768-98-6P	133768-99-7P	133769-00-3P
133769-01-4P	133769-02-5P	133769-03-6P	133769-04-7P	133769-05-8P
133769-06-9P	133769-07-0P	133769-08-1P	133769-09-2P	133769-10-5P
133769-11-6P	133769-12-7P	133769-13-8P	133769-14-9P	133769-15-0P
133769-16-1P	133769-17-2P	133769-18-3P	133769-19-4P	133769-20-7P
133769-21-8P	133769-22-9P	133769-23-0P	133769-24-1P	133769-25-2P
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133769-46-7P	133769-47-8P	133769-48-9P	133769-49-0P	133769-50-3P
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133769-86-5P	133769-87-6P	133769-88-7P	133769-89-8P	133769-90-1P
133769-91-2P	133769-92-3P	133769-93-4P	133769-94-5P	133769-95-6P
133769-96-7P	133769-97-8P	133769-98-9P	133769-99-0P	

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of, as leukotriene antagonist)

IT 133770-00-0P	133770-01-1P	133770-02-2P	133770-03-3P	133770-04-4P
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133770-15-7P	133770-16-8P	133770-17-9P	133770-18-0P	133770-19-1P
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 133791-11-4P 133791-12-5P 133791-13-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of, as leukotriene antagonist)

IT 75-64-9, reactions 79-44-7 88-65-3 95-76-1 97-63-2 100-53-8,  
 Benzenemethanethiol 104-88-1, reactions 107-21-1, 1,2-Ethanediol,  
 reactions 107-96-0 128-37-0, reactions 147-93-3 288-94-8,  
 1H-Tetrazole 507-09-5, Ethanethioic acid, reactions 527-72-0,  
 2-Thiophenecarboxylic acid 585-76-2 591-31-1 598-98-1 603-35-0,  
 reactions 626-19-7, 1,3-Benzenedicarboxaldehyde 665-66-7 824-98-6  
 1078-28-0 2417-73-4 2935-90-2 3070-65-3 4170-30-3, 2-Butenal  
 4965-33-7 7051-34-5 7398-63-2 15852-73-0 16420-13-6 17846-68-3  
 19438-10-9 20826-04-4 21739-92-4 22813-58-7 22948-02-3  
 24964-64-5 25952-53-8 26473-47-2 26673-32-5 28188-41-2  
 32365-96-1 35040-68-7 **38335-14-7** 42900-89-0 43161-30-4  
 51635-55-3 58479-61-1 70124-54-8 80750-11-4 89794-72-9  
 92065-71-9 104208-14-2 115104-25-1 115104-30-8 115104-40-0  
 115125-09-2 119327-65-0 124038-26-2 124038-36-4 124038-48-8  
 124038-53-5 133772-53-9 133772-59-5 133772-83-5 133772-84-6  
 133772-85-7 **133772-86-8** 133772-88-0 133772-89-1  
 133772-90-4 133772-91-5 133775-83-4

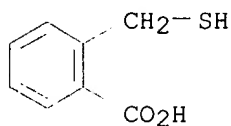
RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, in prepn. of leukotriene antagonists)

IT 1559-02-0  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (redn. of)

IT **38335-14-7** **133772-86-8**  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, in prepn. of leukotriene antagonists)

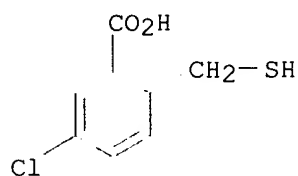
RN 38335-14-7 HCAPLUS

CN Benzoic acid, 2-(mercaptomethyl)- (9CI) (CA INDEX NAME)



RN 133772-86-8 HCAPLUS

CN Benzoic acid, 5-chloro-2-(mercaptomethyl)- (9CI) (CA INDEX NAME)



=> d 1103 all hitstr tot

L103 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:927395 HCAPLUS

DN 138:13959

TI Thiolalkyl **benzoic** acid derivatives [i.e., (mercaptoalkyl) **benzoic** acids] with **NAALADase** inhibitory activity, and their use as neuroprotectants, etc.

IN Tsukamoto, Takashi; Stoermer, Doris; Vitharana, Dilrukshi

PA **Guilford Pharmaceuticals Inc., USA**

SO PCT Int. Appl., 140 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07C323-56

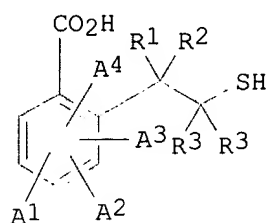
ICS C07C323-58; C07C323-62; A61K031-095; A61P025-00; A61P035-00

CC 25-17 (**Benzene**, Its Derivatives, and Condensed **Benzenoid** Compounds)

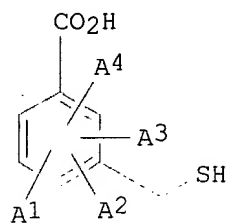
Section cross-reference(s): 1, 7

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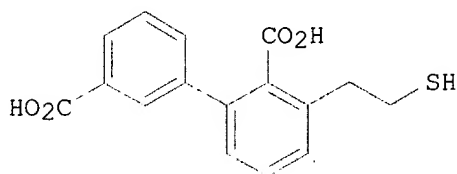
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002096866	A2	20021205	WO 2002-US16971	20020530
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
	CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
	GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
	LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,				
	PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,				
	UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,				
	CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,				
	BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 2001-294036P	P	20010530		
	US 2001-342746P	P	20011228		
OS	MARPAT 138:13959				
GI					



I



II



III

- AB The invention relates to new thiolalkyl **benzoic** acids, pharmaceutical compns. and diagnostic kits comprising such compds., and methods of using such compds. Uses of the compds. include: inhibiting **NAALADase** enzyme activity, detecting diseases where **NAALADase** levels are altered, effecting neuronal activity, effecting TGF- $\beta$  activity, inhibiting angiogenesis, and treating glutamate abnormalities, neuropathy, pain, compulsive disorders, prostate diseases, cancers, **glaucoma**, **retinal** disorders, and cancer. In particular, compds. I and II are claimed [wherein: R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, and R<sub>4</sub> are independently H or C<sub>1</sub>-C<sub>3</sub> alkyl; and A<sub>1</sub>, A<sub>2</sub>, A<sub>3</sub>, and A<sub>4</sub> are independently H, C<sub>1</sub>-C<sub>9</sub> alkyl, C<sub>2</sub>-C<sub>9</sub> alkenyl, C<sub>2</sub>-C<sub>9</sub> alkynyl, aryl, heteroaryl, carbocycle, heterocycle, halo, OH, sulfhydryl, NO<sub>2</sub>, amino, cyano, isocyano, thiocyno, isothiocyno, formamido, thioformamido, sulfo, sulfinio, C<sub>1</sub>-C<sub>9</sub> alkylsulfonyl, C<sub>1</sub>-C<sub>9</sub> alkoxy, C<sub>2</sub>-C<sub>9</sub> alkenoxy, phenoxy, or benzyloxy; wherein said alkyl, alkenyl, alkynyl, aryl, heteroaryl, carbocycle, heterocycle, alkoxy, alkenoxy, phenoxy, and benzyloxy groups are independently unsubstituted or substituted with one or more substituent(s); for II, if A<sub>1</sub> is Cl, F, amino, or thiomethyl, then all of A<sub>2</sub>, A<sub>3</sub>, and A<sub>4</sub> may not be H; also, at least one A group is not H]. Approx. 50 example compds. were prepd., tested, and/or claimed. For instance, 2,2-dimethyl-5-[(trifluoromethanesulfonyl)oxy]-4H-1,3-benzodioxin-4-one was arylated with 3-(ethoxycarbonyl)phenylboronic acid, followed by alk. methanolysis to give 3-hydroxy-[1,1'-biphenyl]-2,3'-dicarboxylic acid di-Me ester. This phenol deriv. was converted to a triflate, vinylated with Bu<sub>3</sub>SnCH=CH<sub>2</sub>, acylthiolated with AcSH and AIBN, and hydrolyzed in 2 steps, to give title compd. III. This compd. inhibited **NAALADase** in vitro, and was active at 0.1 mg/kg in the CCI neuropathic pain model in rats (sciatic nerve ligation/thermal pain response).
- ST thiolalkyl **benzoic** acid prepn **NAALADase** inhibitor neuroprotectant; mercaptoalkylbenzoate prepn treatment neurodegeneration cancer angiogenesis inflammation pain **glaucoma**
- IT Nervous system  
(Huntington's chorea, treatment of; prepn. of (thioalkyl) **benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Nervous system  
(amyotrophic lateral sclerosis, treatment of; prepn. of (thioalkyl) **benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Nerve, disease



- (degeneration, treatment of; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Nerve, disease  
(demyelination, treatment of; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Nerve, disease  
(diabetic neuropathy, treatment of; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Connective tissue  
Nervous system  
Prostate gland  
(disease, treatment of; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Fertility  
Immunity  
Memory, biological  
(disorder, treatment of; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Spinal cord  
(injury, treatment of; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Nerve, disease  
(neuropathy, treatment of pain; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Cytoprotective agents  
(neuroprotectants; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Mental disorder  
(obsession-compulsion, treatment of; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Nerve, disease  
(peripheral neuropathy, treatment of; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Analgesics  
Angiogenesis inhibitors  
Anti-inflammatory agents  
Anti-ischemic agents  
Antidiabetic agents  
**Antiglaucoma agents**  
Antiparkinsonian agents  
Antipsychotics  
Antitumor agents  
Anxiolytics  
Cognition enhancers  
Immunomodulators  
Nervous system agents  
(prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Skin, disease  
(scar, treatment of; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Brain, disease  
(stroke, treatment of; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Brain, disease  
(trauma, treatment of; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Extracellular matrix  
(treatment of disease; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)

- IT Cell proliferation  
(treatment of related diseases; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Anti-infective agents  
Anxiety  
Diabetes mellitus  
Fibrosis  
    **Glaucoma (disease)**  
Inflammation  
Ischemia  
Neoplasm  
Pain  
Parkinson's disease  
Respiratory distress syndrome  
Schizophrenia  
(treatment of; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT Transforming growth factors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(.beta.-, enhancement of secretion; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT 173039-10-6, 2-(Phosphonomethyl)pentanedioic acid 200698-26-6,  
2-[[ (2,3,4,5,6-Pentafluorobenzyl)hydroxyphosphinyl)methyl]pentanedioic acid 254737-18-3, 2-(2-Sulfanylethyl)pentanedioic acid 254737-29-6,  
2-(3-Sulfanylpropyl)pentanedioic acid **377731-28-7**,  
3-Carboxy-5-(1,1-dimethylethyl)-.alpha.-(3-mercaptopropyl)**benzenepropanoic** acid **378242-22-9**, 3-Carboxy-.alpha.-(3-mercaptopropyl)**benzenepropanoic** acid  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(comparison compd.; prepn. of (thioalkyl)**benzoic** acid derivs. as **NAALADase** inhibitors and neuroprotectants)
- IT 28162-88-1P, 3-(Mercaptomethyl)**benzoic** acid  
38335-14-7P, 2-(Mercaptomethyl)**benzoic** acid  
378242-00-3P, 3-(2-Mercaptoethyl)[1,1'-biphenyl]-2,3'-dicarboxylic acid **378242-07-0P**, 2-[(4-Carboxyphenyl)methoxy]-6-(2-mercaptoproethyl)**benzoic** acid **378242-12-7P**,  
4-(Mercaptomethyl)[1,1'-biphenyl]-2,3'-dicarboxylic acid **378242-67-2P**, 3-(2-Mercaptoethyl)**benzoic** acid  
**378242-68-3P**, 5-Hydroxy-2-(2-mercaptoproethyl)**benzoic** acid  
**378242-69-4P**, 2-(2-Mercaptoethyl)**benzoic** acid  
**378242-70-7P**, 5-[(4-Carboxyphenyl)methoxy]-2-(2-mercaptoproethyl)**benzoic** acid **378242-71-8P**, 2-(2-Mercaptoethyl)-5-(phenylmethoxy)**benzoic** acid **378242-72-9P**,  
2-(Carboxymethoxy)-6-(2-mercaptoproethyl)**benzoic** acid **378242-74-1P**, 2-(2-Mercaptoethyl)-6-(phenylmethoxy)**benzoic** acid **378242-75-2P**, 2-[(2-Carboxyphenyl)methoxy]-6-(2-mercaptoproethyl)**benzoic** acid **378242-76-3P**,  
2-(3,3-Dimethylbutoxy)-6-(2-mercaptoproethyl)**benzoic** acid **378242-77-4P**, 2-(2-Mercaptoethyl)-6-(2-phenylethoxy)**benzoic** acid **378242-78-5P**, 2-[(2-Chlorophenyl)methoxy]-6-(2-mercaptoproethyl)**benzoic** acid **378242-79-6P**,  
2-[[3-Carboxy-5-(1,1-dimethylethyl)phenyl]methoxy]-6-(2-mercaptoproethyl)**benzoic** acid **378242-80-9P**, 2-(2-Mercaptoethyl)-6-phenoxybenzoic acid **378242-81-0P**, 2-(2-Mercaptoethyl)-6-(phenylamino)**benzoic** acid **378242-82-1P**,  
2-(2-Mercaptoethyl)-6-(phenylthio)**benzoic** acid **378242-83-2P**, 5'-(1,1-Dimethylethyl)-3-(2-mercaptoproethyl)[1,1'-biphenyl]-2,3'-dicarboxylic acid **378242-84-3P**,  
3-(2-Mercaptoethyl)[1,1'-biphenyl]-2,4'-dicarboxylic acid **378242-85-4P**, 2-[(4-Carboxy-2-methoxyphenyl)methoxy]-6-(2-mercaptoproethyl)**benzoic** acid **378242-86-5P**,

2-[(4-Carboxy-3-methoxyphenyl)methoxy]-6-(2-mercaptoethyl)**benzoic acid** 378242-88-7P, 2-[(2-Bromo-4-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)**benzoic acid** 378242-89-8P, 2-[(3-Bromo-4-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)**benzoic acid** 378242-90-1P, 2-[(4-Chlorophenyl)methoxy]-6-(2-mercaptoethyl)**benzoic acid** 378242-91-2P, 2-(Biphenyl-2-ylmethoxy)-6-(2-mercaptoethyl)**benzoic acid** 378242-92-3P, 2-[(3-Bromo-5-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)**benzoic acid** 378242-93-4P, 2-[(2-Bromo-5-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)**benzoic acid** 378242-94-5P, 2-(2-Mercaptoethyl)-6-[(4-methoxyphenyl)methoxy]**benzoic acid** 378242-95-6P, 2-(2-Mercaptoethyl)-6-[(4-methylphenyl)methoxy]**benzoic acid** 378242-96-7P, 2-[(4-Bromo-3-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)**benzoic acid** 378242-97-8P, 2-[(2-Carboxy-5-methoxyphenyl)methoxy]-6-(2-mercaptoethyl)**benzoic acid** 378242-98-9P, 5-(Mercaptomethyl)-2-(2-phenylethoxy)**benzoic acid** 378242-99-0P, 2-Bromo-5-(mercaptomethyl)**benzoic acid** 378243-00-6P, 5-(Mercaptomethyl)-2-(phenylmethoxy)**benzoic acid** 378243-01-7P, 4-Bromo-3-(mercaptomethyl)**benzoic acid** 477351-08-9P, 5-[(3-Carboxyphenyl)methoxy]-2-(2-mercaptoethyl)**benzoic acid** 477351-09-0P, 2-[(3-Carboxybenzyl)oxy]-6-(2-mercaptoethyl)**benzoic acid** 477351-10-3P, 2-[(4-Bromobenzyl)oxy]-6-(2-mercaptoethyl)**benzoic acid** 477351-11-4P, 2-[(4-tert-Butylbenzyl)oxy]-6-(2-mercaptoethyl)**benzoic acid** 477351-12-5P, 2-[(3-Bromobenzyl)oxy]-6-(2-mercaptoethyl)**benzoic acid** 477351-13-6P, 2-(2-Mercaptoethyl)-6-methoxybenzoic acid 477351-14-7P, 2-(Benzhydryloxy)-6-(2-mercaptoethyl)**benzoic acid** 477351-15-8P, 2-[(3-Chlorobenzyl)oxy]-6-(2-mercaptoethyl)**benzoic acid** 477351-16-9P, 3-(2-Mercaptoethyl)biphenyl-2-carboxylic acid 477351-17-0P, 2-(Carboxymethyl)-6-(2-mercaptoethyl)**benzoic acid**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; prepn. of (thioalkyl)**benzoic acid** derivs. as NAALADase inhibitors and neuroprotectants)

IT 9074-87-7, NAALADase

RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitors; prepn. of (thioalkyl)**benzoic acid** derivs. as NAALADase inhibitors and neuroprotectants)

IT 43071-26-7P, 2-Hydroxy-6-[(methoxycarbonyl)methyl]**benzoic acid** methyl ester 378242-01-4P, 3-(2,2-Dimethyl-4-oxo-4H-1,3-benzodioxin-5-yl)**benzoic acid** ethyl ester 378242-02-5P, 3-Hydroxy-[1,1'-biphenyl]-2,3'-dicarboxylic acid dimethyl ester 378242-03-6P, 3-[(Trifluoromethanesulfonyl)oxy]-[1,1'-biphenyl]-2,3'-dicarboxylic acid dimethyl ester 378242-04-7P, 3-Ethenyl-[1,1'-biphenyl]-2,3'-dicarboxylic acid dimethyl ester 378242-05-8P, 3-[2-(Acetylthio)ethyl]-[1,1'-biphenyl]-2,3'-dicarboxylic acid dimethyl ester 378242-06-9P, 3-(2-Mercaptoethyl)-[1,1'-biphenyl]-2,3'-dicarboxylic acid 2-methyl ester 378242-08-1P, 5-Ethenyl-2,2-dimethyl-4H-1,3-benzodioxin-4-one 378242-09-2P, 2-Ethenyl-6-hydroxybenzoic acid methyl ester 378242-10-5P, 2-Ethenyl-6-[[4-(methoxycarbonyl)phenyl]methoxy]**benzoic acid** methyl ester 378242-13-8P, 4-Methyl[1,1'-biphenyl]-2,3'-dicarboxylic acid 378242-15-0P, 4-Methyl[1,1'-biphenyl]-2,3'-dicarboxylic acid dimethyl ester 378242-16-1P, 4-(Bromomethyl)-[1,1'-biphenyl]-2,3'-dicarboxylic acid dimethyl ester 378242-17-2P, 4-[(Acetylthio)methyl]-[1,1'-biphenyl]-2,3'-dicarboxylic acid dimethyl ester 477351-18-1P, 2-[2-(Acetylthio)ethyl]-6-[[4-(methoxycarbonyl)phenyl]methoxy]**benzoic acid** methyl ester 477351-19-2P, 2-[(Methoxycarbonyl)methyl]-6-

[(trifluoromethanesulfonyl)oxy]**benzoic** acid methyl ester  
 477351-20-5P, 2-[(Methoxycarbonyl)methyl]-6-vinylbenzoic acid methyl ester  
 477351-21-6P, 2-[2-(Acetylsulfanyl)ethyl]-6-[(methoxycarbonyl)methyl]  
**benzoic** acid methyl ester

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)

(intermediate; prepn. of (thioalkyl)**benzoic** acid derivs. as

**NAALADase** inhibitors and neuroprotectants)

IT 2417-72-3, Methyl 4-(bromomethyl)**benzoate** 4334-87-6,  
 3-(Ethoxycarbonyl)phenylboronic acid 6967-82-4, 2-Bromo-5-methylbenzoic  
 acid 25487-66-5, 3-Carboxyphenylboronic acid 42421-12-5,  
 2-(Carboxymethyl)-6-hydroxybenzoic acid 164014-40-8,  
 2,2-Dimethyl-5-[(trifluoromethanesulfonyl)oxy]-4H-1,3-**benzodioxin**  
 -4-one

RL: RCT (Reactant); RACT (Reactant or reagent)

(starting material; prepn. of (thioalkyl)**benzoic** acid derivs.

as **NAALADase** inhibitors and neuroprotectants)

IT 56-86-0, L-Glutamic acid, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(treatment of abnormalities in biol. of; prepn. of (thioalkyl)

**benzoic** acid derivs. as **NAALADase** inhibitors and

neuroprotectants)

IT 377731-28-7, 3-Carboxy-5-(1,1-dimethylethyl)-.alpha.-(3-  
 mercaptopropyl)**benzenepropanoic** acid 378242-22-9,

3-Carboxy-.alpha.-(3-mercaptopropyl)**benzenepropanoic** acid

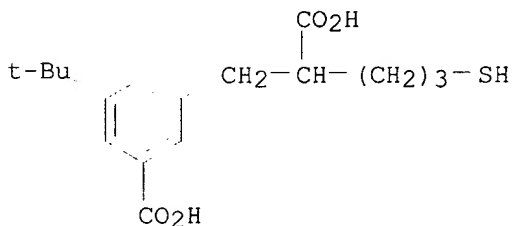
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)

(comparison compd.; prepn. of (thioalkyl)**benzoic** acid derivs.

as **NAALADase** inhibitors and neuroprotectants)

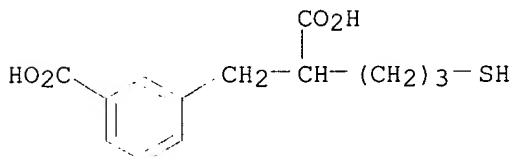
RN 377731-28-7 HCAPLUS

CN Benzenepropanoic acid, 3-carboxy-5-(1,1-dimethylethyl)-.alpha.-(3-  
 mercaptopropyl)- (9CI) (CA INDEX NAME)



RN 378242-22-9 HCAPLUS

CN Benzenepropanoic acid, 3-carboxy-.alpha.-(3-mercaptopropyl)- (9CI) (CA  
 INDEX NAME)



IT 28162-88-1P, 3-(Mercaptomethyl)**benzoic** acid

38335-14-7P, 2-(Mercaptomethyl)**benzoic** acid

378242-00-3P, 3-(2-Mercaptoethyl)[1,1'-biphenyl]-2,3'-dicarboxylic  
 acid 378242-07-0P, 2-[(4-Carboxyphenyl)methoxy]-6-(2-

mercaptoethyl)**benzoic** acid 378242-12-7P,

4-(Mercaptomethyl)[1,1'-biphenyl]-2,3'-dicarboxylic acid

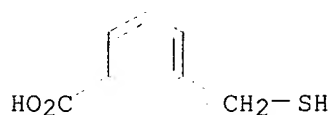
378242-67-2P, 3-(2-Mercaptoethyl)benzoic acid  
378242-68-3P, 5-Hydroxy-2-(2-mercaptoethyl)benzoic acid  
378242-69-4P, 2-(2-Mercaptoethyl)benzoic acid  
378242-70-7P, 5-[(4-Carboxyphenyl)methoxy]-2-(2-mercaptoethyl)  
benzoic acid 378242-71-8P, 2-(2-Mercaptoethyl)-5-  
(phenylmethoxy)benzoic acid 378242-72-9P,  
2-(Carboxymethoxy)-6-(2-mercaptoethyl)benzoic acid  
378242-74-1P, 2-(2-Mercaptoethyl)-6-(phenylmethoxy)benzoic  
acid 378242-75-2P, 2-[(2-Carboxyphenyl)methoxy]-6-(2-  
mercaptoethyl)benzoic acid 378242-76-3P,  
2-(3,3-Dimethylbutoxy)-6-(2-mercaptoethyl)benzoic acid  
378242-77-4P, 2-(2-Mercaptoethyl)-6-(2-phenylethoxy)  
benzoic acid 378242-78-5P, 2-[(2-Chlorophenyl)methoxy]-6-  
(2-mercaptoethyl)benzoic acid 378242-79-6P,  
2-[[3-Carboxy-5-(1,1-dimethylethyl)phenyl]methoxy]-6-(2-mercaptoethyl)  
benzoic acid 378242-80-9P, 2-(2-Mercaptoethyl)-6-  
phenoxybenzoic acid 378242-81-0P, 2-(2-Mercaptoethyl)-6-  
(phenylamino)benzoic acid 378242-82-1P,  
2-(2-Mercaptoethyl)-6-(phenylthio)benzoic acid  
378242-83-2P, 5'-(1,1-Dimethylethyl)-3-(2-mercaptoethyl)[1,1'-  
biphenyl]-2,3'-dicarboxylic acid 378242-84-3P,  
3-(2-Mercaptoethyl)[1,1'-biphenyl]-2,4'-dicarboxylic acid  
378242-85-4P, 2-[(4-Carboxy-2-methoxyphenyl)methoxy]-6-(2-  
mercaptoethyl)benzoic acid 378242-86-5P,  
2-[(4-Carboxy-3-methoxyphenyl)methoxy]-6-(2-mercaptoethyl)benzoic  
acid 378242-88-7P, 2-[(2-Bromo-4-carboxyphenyl)methoxy]-6-(2-  
mercaptoethyl)benzoic acid 378242-89-8P,  
2-[(3-Bromo-4-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)benzoic  
acid 378242-90-1P, 2-[(4-Chlorophenyl)methoxy]-6-(2-  
mercaptoethyl)benzoic acid 378242-91-2P,  
2-(Biphenyl-2-ylmethoxy)-6-(2-mercaptoethyl)benzoic acid  
378242-92-3P, 2-[(3-Bromo-5-carboxyphenyl)methoxy]-6-(2-  
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2-[(2-Bromo-5-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)benzoic  
acid 378242-94-5P, 2-(2-Mercaptoethyl)-6-[(4-  
methoxyphenyl)methoxy]benzoic acid 378242-95-6P,  
2-(2-Mercaptoethyl)-6-[(4-methylphenyl)methoxy]benzoic acid  
378242-96-7P, 2-[(4-Bromo-3-carboxyphenyl)methoxy]-6-(2-  
mercaptoethyl)benzoic acid 378242-97-8P,  
2-[(2-Carboxy-5-methoxyphenyl)methoxy]-6-(2-mercaptoethyl)benzoic  
acid 378242-98-9P, 5-(Mercaptomethyl)-2-(2-phenylethoxy)  
benzoic acid 378242-99-0P, 2-Bromo-5-(mercaptomethyl)  
benzoic acid 378243-00-6P, 5-(Mercaptomethyl)-2-  
(phenylmethoxy)benzoic acid 378243-01-7P,  
4-Bromo-3-(mercaptomethyl)benzoic acid 477351-08-9P,  
5-[(3-Carboxyphenyl)methoxy]-2-(2-mercaptoethyl)benzoic acid  
477351-09-0P, 2-[(3-Carboxybenzyl)oxy]-6-(2-mercaptoethyl)  
benzoic acid 477351-10-3P, 2-[(4-Bromobenzyl)oxy]-6-(2-  
mercaptoethyl)benzoic acid 477351-11-4P,  
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methoxybenzoic acid 477351-14-7P, 2-(Benzhydryloxy)-6-(2-  
mercaptoethyl)benzoic acid 477351-15-8P,  
2-[(3-Chlorobenzyl)oxy]-6-(2-mercaptoethyl)benzoic acid  
477351-16-9P, 3-(2-Mercaptoethyl)biphenyl-2-carboxylic acid  
477351-17-0P, 2-(Carboxymethyl)-6-(2-mercaptoethyl)benzoic  
acid

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)

(drug candidate; prepn. of (thioalkyl)benzoic acid derivs. as  
NAALADase inhibitors and neuroprotectants)

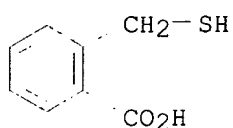
RN 28162-88-1 HCAPLUS

CN Benzoic acid, 3-(mercaptomethyl)- (9CI) (CA INDEX NAME)



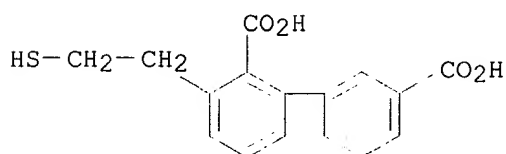
RN 38335-14-7 HCAPLUS

CN Benzoic acid, 2-(mercaptomethyl)- (9CI) (CA INDEX NAME)



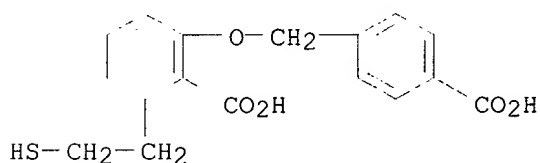
RN 378242-00-3 HCAPLUS

CN [1,1'-Biphenyl]-2,3'-dicarboxylic acid, 3-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



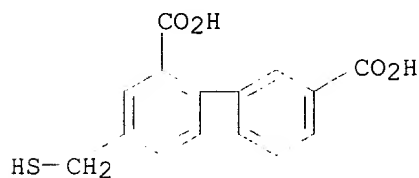
RN 378242-07-0 HCAPLUS

CN Benzoic acid, 2-[(4-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



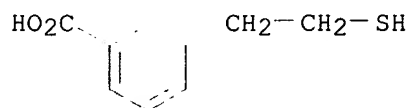
RN 378242-12-7 HCAPLUS

CN [1,1'-Biphenyl]-2,3'-dicarboxylic acid, 4-(mercaptomethyl)- (9CI) (CA INDEX NAME)

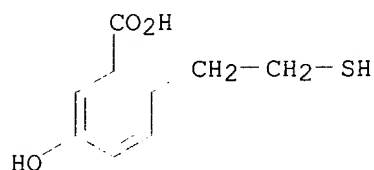


RN 378242-67-2 HCAPLUS

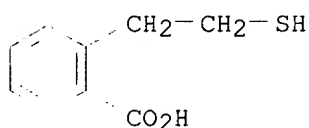
CN Benzoic acid, 3-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



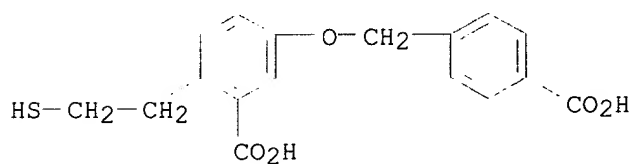
RN 378242-68-3 HCAPLUS  
 CN Benzoic acid, 5-hydroxy-2-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



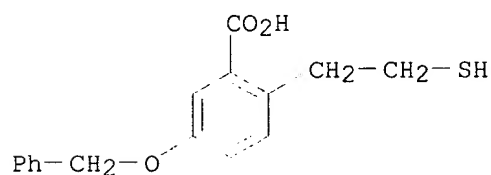
RN 378242-69-4 HCAPLUS  
 CN Benzoic acid, 2-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



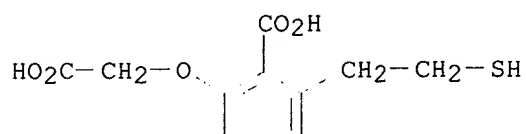
RN 378242-70-7 HCAPLUS  
 CN Benzoic acid, 5-[(4-carboxyphenyl)methoxy]-2-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



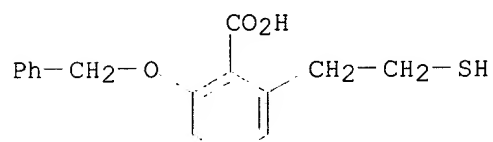
RN 378242-71-8 HCAPLUS  
 CN Benzoic acid, 2-(2-mercaptoethyl)-5-(phenylmethoxy)- (9CI) (CA INDEX NAME)



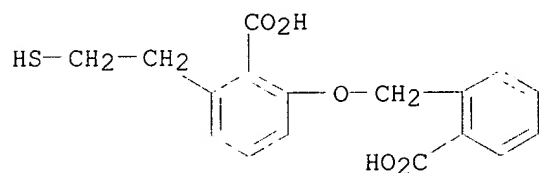
RN 378242-72-9 HCAPLUS  
 CN Benzoic acid, 2-(carboxymethoxy)-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



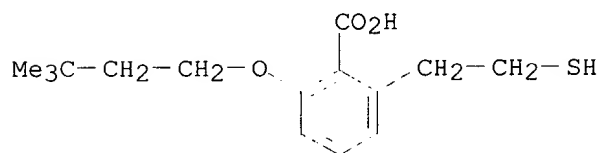
RN 378242-74-1 HCAPLUS  
 CN Benzoic acid, 2-(2-mercaptoethyl)-6-(phenylmethoxy)- (9CI) (CA INDEX NAME)



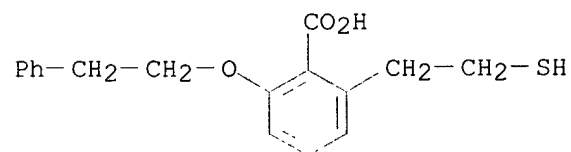
RN 378242-75-2 HCAPLUS  
 CN Benzoic acid, 2-[(2-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



RN 378242-76-3 HCAPLUS  
 CN Benzoic acid, 2-(3,3-dimethylbutoxy)-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



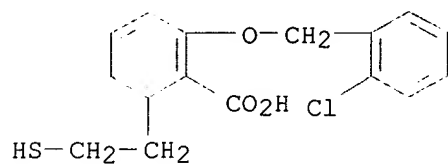
RN 378242-77-4 HCAPLUS  
 CN Benzoic acid, 2-(2-mercaptoethyl)-6-(2-phenylethoxy)- (9CI) (CA INDEX NAME)



RN 378242-78-5 HCAPLUS  
 CN Benzoic acid, 2-[(2-chlorophenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)

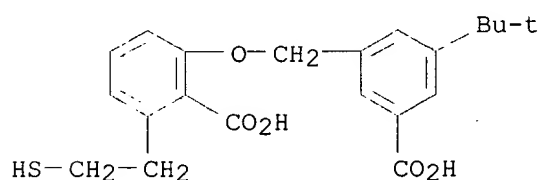


INDEX NAME)



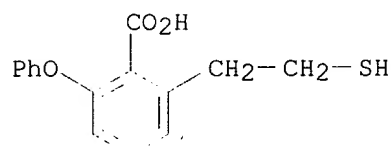
RN 378242-79-6 HCAPLUS

CN Benzoic acid, 2-[[3-carboxy-5-(1,1-dimethylethyl)phenyl]methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



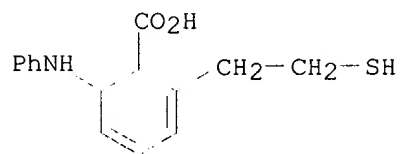
RN 378242-80-9 HCAPLUS

CN Benzoic acid, 2-(2-mercaptoethyl)-6-phenoxy- (9CI) (CA INDEX NAME)



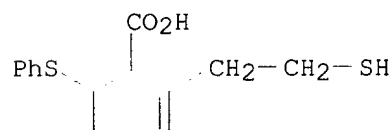
RN 378242-81-0 HCAPLUS

CN Benzoic acid, 2-(2-mercaptoethyl)-6-(phenylthio)- (9CI) (CA INDEX NAME)



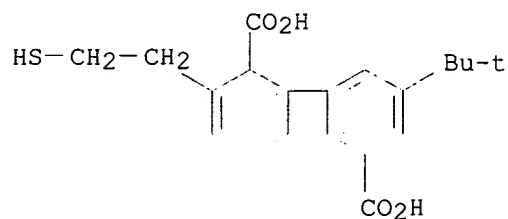
RN 378242-82-1 HCAPLUS

CN Benzoic acid, 2-(2-mercaptoethyl)-6-(phenylthio)- (9CI) (CA INDEX NAME)



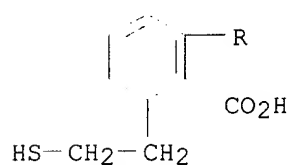
RN 378242-83-2 HCAPLUS

CN [1,1'-Biphenyl]-2,3'-dicarboxylic acid, 5'-(1,1-dimethylethyl)-3-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



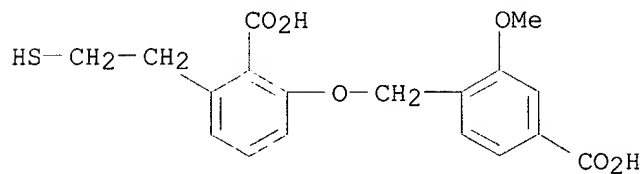
RN 378242-84-3 HCAPLUS

CN [1,1'-Biphenyl]-2,4'-dicarboxylic acid, 3-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



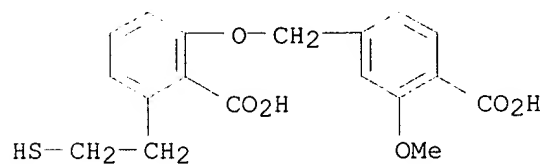
RN 378242-85-4 HCAPLUS

CN Benzoic acid, 2-[(4-carboxy-2-methoxyphenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



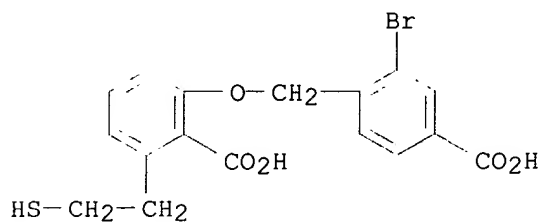
RN 378242-86-5 HCAPLUS

CN Benzoic acid, 4-[[2-carboxy-3-(2-mercaptoethyl)phenoxy]methyl]-2-methoxy- (9CI) (CA INDEX NAME)

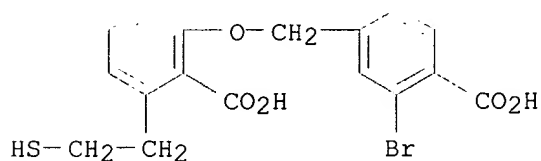


RN 378242-88-7 HCAPLUS

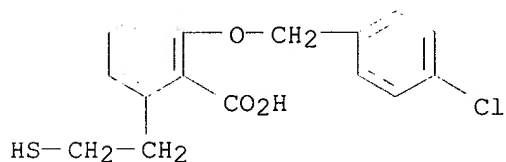
CN Benzoic acid, 2-[(2-bromo-4-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



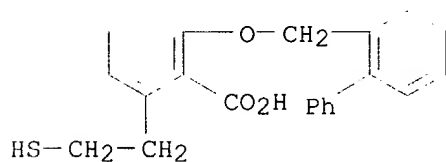
RN 378242-89-8 HCAPLUS  
 CN Benzoic acid, 2-bromo-4-[[2-carboxy-3-(2-mercaptoethyl)phenoxy]methyl]-  
 (9CI) (CA INDEX NAME)



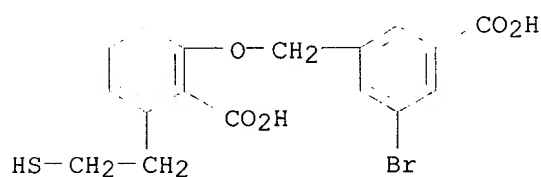
RN 378242-90-1 HCAPLUS  
 CN Benzoic acid, 2-[(4-chlorophenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA  
 INDEX NAME)



RN 378242-91-2 HCAPLUS  
 CN Benzoic acid, 2-[(1,1'-biphenyl)-2-ylmethoxy]-6-(2-mercaptoethyl)- (9CI)  
 (CA INDEX NAME)

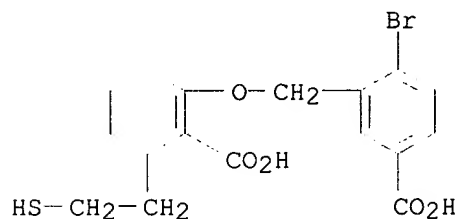


RN 378242-92-3 HCAPLUS  
 CN Benzoic acid, 2-[(3-bromo-5-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)-  
 (9CI) (CA INDEX NAME)



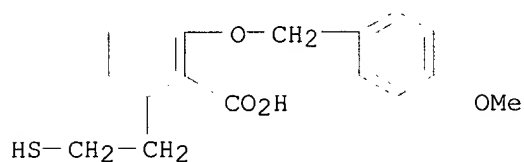
RN 378242-93-4 HCAPLUS

CN Benzoic acid, 2-[(2-bromo-5-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)-  
(9CI) (CA INDEX NAME)



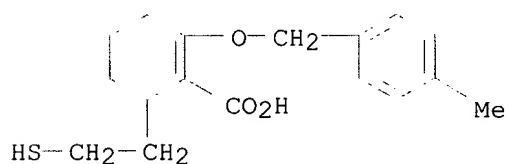
RN 378242-94-5 HCAPLUS

CN Benzoic acid, 2-(2-mercaptoethyl)-6-[(4-methoxyphenyl)methoxy]- (9CI) (CA INDEX NAME)



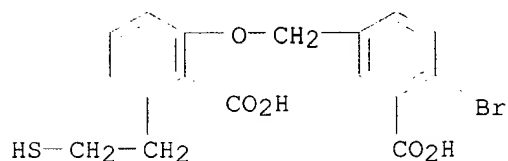
RN 378242-95-6 HCAPLUS

CN Benzoic acid, 2-(2-mercaptoethyl)-6-[(4-methylphenyl)methoxy]- (9CI) (CA INDEX NAME)



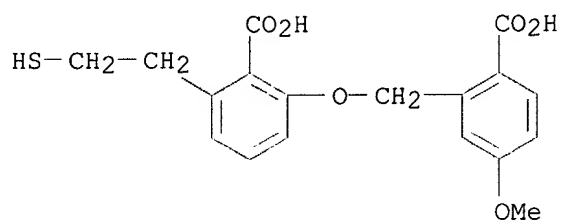
RN 378242-96-7 HCAPLUS

CN Benzoic acid, 2-bromo-5-[[2-carboxy-3-(2-mercaptoethyl)phenoxy]methyl]-  
(9CI) (CA INDEX NAME)

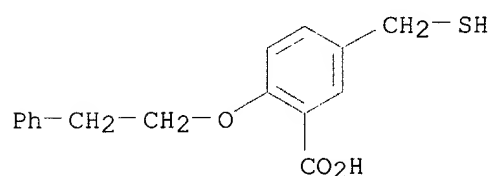


RN 378242-97-8 HCAPLUS

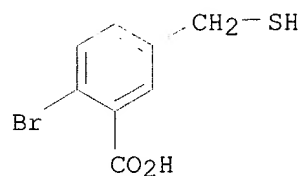
CN Benzoic acid, 2-[[2-carboxy-3-(2-mercaptoethyl)phenoxy]methyl]-4-methoxy-  
(9CI) (CA INDEX NAME)



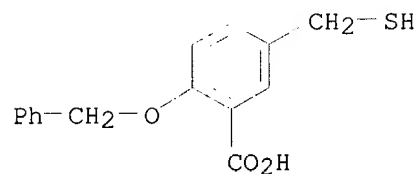
RN 378242-98-9 HCAPLUS  
 CN Benzoic acid, 5-(mercaptomethyl)-2-(2-phenylethoxy)- (9CI) (CA INDEX NAME)



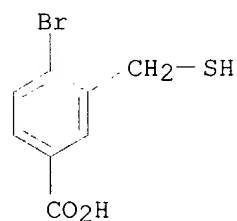
RN 378242-99-0 HCAPLUS  
 CN Benzoic acid, 2-bromo-5-(mercaptomethyl)- (9CI) (CA INDEX NAME)



RN 378243-00-6 HCAPLUS  
 CN Benzoic acid, 5-(mercaptomethyl)-2-(phenylmethoxy)- (9CI) (CA INDEX NAME)

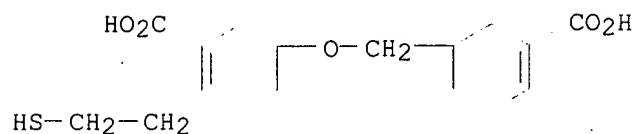


RN 378243-01-7 HCAPLUS  
 CN Benzoic acid, 4-bromo-3-(mercaptomethyl)- (9CI) (CA INDEX NAME)



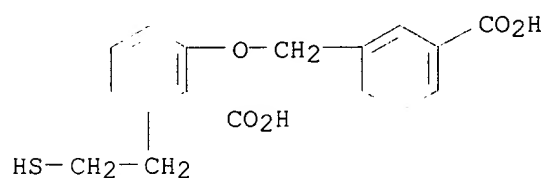
RN 477351-08-9 HCAPLUS

CN Benzoic acid, 5-[(3-carboxyphenyl)methoxy]-2-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



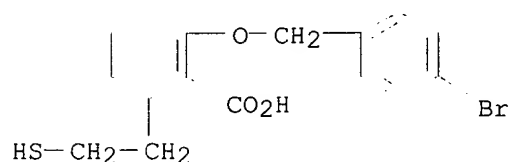
RN 477351-09-0 HCAPLUS

CN Benzoic acid, 2-[(3-carboxyphenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



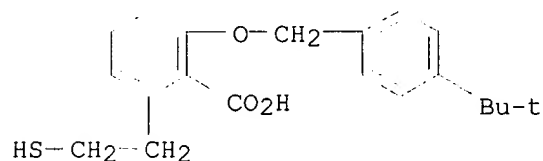
RN 477351-10-3 HCAPLUS

CN Benzoic acid, 2-[(4-bromophenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



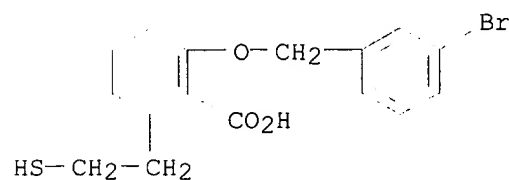
RN 477351-11-4 HCAPLUS

CN Benzoic acid, 2-[[4-(1,1-dimethylethyl)phenyl]methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



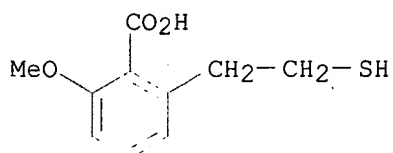
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CN Benzoic acid, 2-[(3-bromophenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



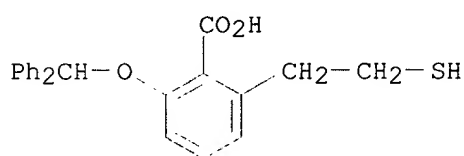
RN 477351-13-6 HCAPLUS

CN Benzoic acid, 2-(2-mercaptoethyl)-6-methoxy- (9CI) (CA INDEX NAME)



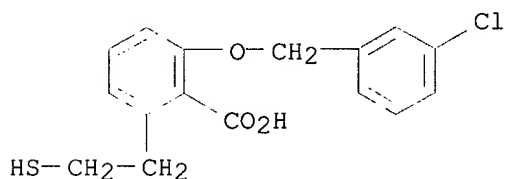
RN 477351-14-7 HCAPLUS

CN Benzoic acid, 2-(diphenylmethoxy)-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



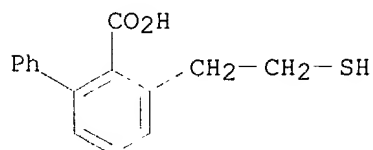
RN 477351-15-8 HCAPLUS

CN Benzoic acid, 2-[(3-chlorophenyl)methoxy]-6-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



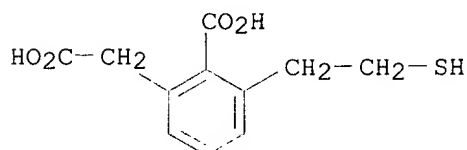
RN 477351-16-9 HCAPLUS

CN [1,1'-Biphenyl]-2-carboxylic acid, 3-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



RN 477351-17-0 HCAPLUS

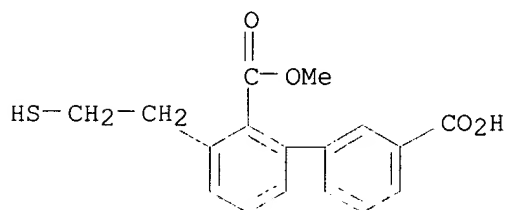
CN Benzeneacetic acid, 2-carboxy-3-(2-mercaptoethyl)- (9CI) (CA INDEX NAME)



IT **9074-87-7, NAALADase**  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitors; prepn. of (thioalkyl)**benzoic** acid derivs. as  
**NAALADase** inhibitors and neuroprotectants)  
 RN 9074-87-7 HCAPLUS  
 CN Hydrolase, .gamma.-glutamyl (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT **378242-06-9P, 3-(2-Mercaptoethyl)-[1,1'-biphenyl]-2,3'-**  
 dicarboxylic acid 2-methyl ester  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (intermediate; prepn. of (thioalkyl)**benzoic** acid derivs. as  
**NAALADase** inhibitors and neuroprotectants)  
 RN 378242-06-9 HCAPLUS  
 CN [1,1'-Biphenyl]-2,3'-dicarboxylic acid, 3-(2-mercaptoethyl)-, 2-methyl  
 ester (9CI) (CA INDEX NAME)



L103 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2002:888696 HCAPLUS  
 DN 137:380049  
 TI Hydroxamic acids and acyl hydroxylamines as **NAALADase**  
 inhibitors, preparation, and therapeutic and diagnostic use thereof  
 IN Tsukamoto, Takashi; Liu, Qun; Xu, Weizheng; Majer, Pavel; Hin, Bunda;  
 Stoermer, Doris  
 PA **Guilford Pharmaceuticals Inc., USA**  
 SO PCT Int. Appl., 123 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C07C259-06  
 ICS C07C323-60; C07C317-44; A61K031-10; A61K031-16  
 CC 1-12 (Pharmacology)  
 Section cross-reference(s): 9, 25, 63  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002092553	A1	20021121	WO 2002-US14635	20020510
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI US 2001-290015P	P	20010511		
US 2001-342741P	P	20011228		
OS	MARPAT 137:380049			
AB	The invention provides compds., pharmaceutical compns. and diagnostic kits			



comprising such compds., and methods of using such compds. for inhibiting **NAALADase** enzyme activity, detecting diseases where **NAALADase** levels are altered, effecting neuronal activity, effecting TGF- $\beta$  activity, inhibiting angiogenesis, and treating glutamate abnormalities, neuropathy, pain, compulsive disorders, prostate diseases, cancers and **glaucoma**.

- ST hydroxamic acid hydroxylamine compd **NAALADase** inhibitor prepn therapeutic diagnostic; TGF modulation hydroxamic acid hydroxylamine compd **NAALADase** inhibitor; nervous system agent hydroxamic acid hydroxylamine compd **NAALADase** inhibitor; angiogenesis inhibitor hydroxamic acid hydroxylamine compd **NAALADase** inhibitor; glutamate disease hydroxamic acid hydroxylamine compd **NAALADase** inhibitor; neuropathy pain hydroxamic acid hydroxylamine compd **NAALADase** inhibitor; compulsive disorder hydroxamic acid hydroxylamine compd **NAALADase** inhibitor; prostate disease hydroxamic acid hydroxylamine compd **NAALADase** inhibitor; cancer **glaucoma** hydroxamic acid hydroxylamine compd **NAALADase** inhibitor
- IT Nervous system  
(Huntington's chorea; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)
- IT Diagnosis  
(agents; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)
- IT Nervous system  
(amyotrophic lateral sclerosis; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)
- IT Cell proliferation  
(cell growth-related disease; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)
- IT Blood vessel, disease  
(collagen vascular disease; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)
- IT Collagens, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(collagen vascular disease; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)
- IT Mental disorder  
(compulsive; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)
- IT Nerve, disease  
(degeneration; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)
- IT Nerve, disease  
(demyelination; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)
- IT Nerve, disease  
(diabetic neuropathy; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)
- IT Connective tissue  
Nervous system  
Prostate gland  
(disease; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

IT Fertility  
Immunity  
Memory, biological  
    (disorder; hydroxamic acids and acyl hydroxylamines as  
    **NAALADase** inhibitors, prepn., and therapeutic and diagnostic  
    use)

IT Epithelium  
    (epithelial tissue scarring; hydroxamic acids and acyl hydroxylamines  
    as **NAALADase** inhibitors, prepn., and therapeutic and  
    diagnostic use)

IT Disease, animal  
    (fibroproliferative; hydroxamic acids and acyl hydroxylamines as  
    **NAALADase** inhibitors, prepn., and therapeutic and diagnostic  
    use)

IT Extracellular matrix  
    (formation disorder; hydroxamic acids and acyl hydroxylamines as  
    **NAALADase** inhibitors, prepn., and therapeutic and diagnostic  
    use)

IT Analgesics  
Angiogenesis inhibitors  
Anti-infective agents  
Anti-inflammatory agents  
Anti-ischemic agents  
Antidiabetic agents  
    **Antiglaucoma agents**  
Antiparkinsonian agents  
Antipsychotics  
Antitumor agents  
Anxiety  
Anxiolytics  
Cardiovascular agents  
Cognition enhancers  
Cytotoxic agents  
Diabetes mellitus  
Diagnosis  
Drug delivery systems  
    **Glaucoma (disease)**  
Imaging agents  
Infection  
Inflammation  
Neoplasm  
Nervous system agents  
Pain  
Parkinson's disease  
Respiratory distress syndrome  
Schizophrenia  
    (hydroxamic acids and acyl hydroxylamines as **NAALADase**  
    inhibitors, prepn., and therapeutic and diagnostic use)

IT Brain, disease  
Nerve, disease  
Spinal cord  
    (injury; hydroxamic acids and acyl hydroxylamines as **NAALADase**  
    inhibitors, prepn., and therapeutic and diagnostic use)

IT Brain, disease  
    (ischemia; hydroxamic acids and acyl hydroxylamines as  
    **NAALADase** inhibitors, prepn., and therapeutic and diagnostic  
    use)

IT Regeneration, animal  
    (nerve; hydroxamic acids and acyl hydroxylamines as **NAALADase**  
    inhibitors, prepn., and therapeutic and diagnostic use)

IT Pain  
    (neuropathic; hydroxamic acids and acyl hydroxylamines as  
    **NAALADase** inhibitors, prepn., and therapeutic and diagnostic

use)

IT Nerve, disease  
(neuropathy, neuropathic pain; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

IT Cytoprotective agents  
(neuroprotectants; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

IT Nerve, disease  
(peripheral neuropathy, from phys. injury or disease; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

IT Nerve  
(regeneration; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

IT Brain, disease  
(stroke; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

IT Brain, disease  
(trauma; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

IT Transforming growth factors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(.beta.-; modulators; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

IT Transforming growth factors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(.beta.1-; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

IT Transforming growth factors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(.beta.2-; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

IT 56-86-0, L-Glutamic acid, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(glutamate abnormalities; hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

IT **9074-87-7, NAALADase**  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

IT 378243-50-6P 475653-67-9P  
RL: DGN (Diagnostic use); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

IT 4743-99-1 173039-10-6 200698-26-6 254737-18-3 254737-29-6  
378243-04-0 378243-05-1 378243-06-2 378243-07-3 378243-08-4  
378243-09-5 378243-10-8 378243-11-9 378243-12-0 378243-13-1  
378243-14-2 378243-15-3 378243-16-4 378243-17-5 378243-18-6  
378243-19-7 378243-20-0 378243-21-1 378243-22-2 378243-23-3  
378243-24-4 378243-25-5 378243-26-6 378243-27-7 378243-28-8  
378243-29-9 378243-30-2 378243-31-3 378243-32-4 378243-33-5  
378243-34-6 378243-35-7 378243-36-8 378243-63-1 475653-40-8  
475653-41-9 475653-42-0 475653-43-1 475653-44-2 475653-45-3  
475653-46-4 475653-47-5 475653-48-6 475653-49-7 475653-50-0

475653-51-1 475653-52-2 475653-53-3 475653-54-4 475653-55-5  
475653-56-6 **475653-68-0 475653-69-1**

RL: DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

IT 622-33-3, O-Benzylhydroxylamine 830-79-5, 2,4,6-Trimethoxybenzaldehyde  
2417-72-3, Methyl 4-(bromomethyl)**benzoate** 2687-43-6  
3196-15-4 3395-91-3 36239-09-5, Ethyl malonyl chloride 88987-42-2  
378242-02-5 **378242-22-9**

RL: RCT (Reactant); RACT (Reactant or reagent)

(hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

IT 475653-57-7P 475653-58-8P 475653-59-9P 475653-60-2P 475653-61-3P  
475653-62-4P 475653-63-5P 475653-64-6P 475653-65-7P 475653-66-8P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Guilford Pharm Inc; WO 9845256 A 1998 HCAPLUS
- (2) Guilford Pharm Inc; WO 0192274 A 2001 HCAPLUS
- (3) Kaczka, E; US 3282986 A 1966 HCAPLUS
- (4) Shell Int Research; EP 0057027 A 1982 HCAPLUS

IT **9074-87-7, NAALADase**

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

RN 9074-87-7 HCAPLUS

CN Hydrolase, .gamma.-glutamyl (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

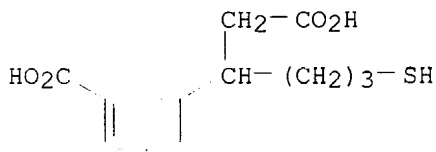
IT **475653-68-0 475653-69-1**

RL: DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(hydroxamic acids and acyl hydroxylamines as **NAALADase** inhibitors, prepn., and therapeutic and diagnostic use)

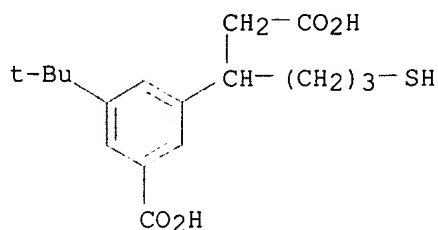
RN 475653-68-0 HCAPLUS

CN Benzenepropanoic acid, 3-carboxy-.beta.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



RN 475653-69-1 HCAPLUS

CN Benzenepropanoic acid, 3-carboxy-5-(1,1-dimethylethyl)-.beta.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)

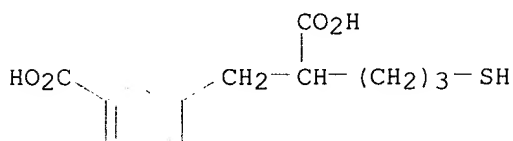


IT 378242-22-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (hydroxamic acids and acyl hydroxylamines as **NAALADase**  
 inhibitors, prepn., and therapeutic and diagnostic use)

RN 378242-22-9 HCAPLUS

CN Benzenepropanoic acid, 3-carboxy-.alpha.-(3-mercaptopropyl)- (9CI) (CA  
 INDEX NAME)



L103 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:555453 HCAPLUS

DN 137:124986

TI Preparation of thiol-based **NAALADase** inhibitors and their uses  
 thereof

IN Tsukamoto, Takashi; Majer, Pavel; Stoermer, Doris; Slusher, Barbara  
 S.

PA Guilford Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 202 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07C323-56

ICS A61K031-095; A61P025-00; A61P035-00; C07C323-52; C07C323-58;  
 C07C323-59; C07C323-60; C07C323-62; C07C323-65

CC 25-17 (**Benzene**, Its Derivatives, and Condensed **Benzenoid**  
 Compounds)

Section cross-reference(s): 1, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002057222	A2	20020725	WO 2002-US1205	20020117
	WO 2002057222	A3	20021219		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRAI	US 2001-261754P	P	20010117		
	US 2001-342772P	P	20011228		

OS MARPAT 137:124986

AB This invention relates to new compds., pharmaceutical compns. and diagnostic kits comprising such compds., and methods of using such compds. for inhibiting **NAALADase** enzyme activity, detecting diseases where **NAALADase** levels are altered, effecting neuronal activity, effecting TGF-b activity, inhibiting angiogenesis, and treating glutamate abnormalities, diabetic neuropathy, pain, compulsive disorders, prostate diseases, cancers and **glaucoma**. Thus, rats treated with **NAALADase** inhibitor 3-carboxy-5-(1,1-dimethylethyl)-alpha-(3-mercaptopropyl)**benzenepropanoic** acid of this invention at various dose levels (10, 1, 0.1 mg/kg) for 15 days after sciatic nerve ligation showed normalized difference in scores between the operated and unoperated paws compared to continued hyperalgesic for rats treated with vehicle under the same conditions.

ST **benzene** deriv thiol carboxylic acid drug **NAALADase** inhibitor prepn

IT Diagnosis

(agents; prepn. and uses of thiol-based **NAALADase** inhibitors)

IT Nervous system

(amyotrophic lateral sclerosis; prepn. and uses of thiol-based **NAALADase** inhibitors)

IT Nerve, disease

(demyelination; prepn. and uses of thiol-based **NAALADase** inhibitors)

IT Nerve, disease

(diabetic neuropathy; prepn. and uses of thiol-based **NAALADase** inhibitors)

IT Prostate gland

(disease; prepn. and uses of thiol-based **NAALADase** inhibitors)

IT Fertility

(disorder; prepn. and uses of thiol-based **NAALADase** inhibitors)

IT Brain, disease

(injury; prepn. and uses of thiol-based **NAALADase** inhibitors)

IT Nerve, disease

(peripheral neuropathy; prepn. and uses of thiol-based **NAALADase** inhibitors)

IT Anxiety

Blood vessel, disease

Drug delivery systems

Drugs

Enantiomers

**Glaucoma (disease)**

Inflammation

Medical goods

Pain

Parkinson's disease

Respiratory distress syndrome

Schizophrenia

(prepn. and uses of thiol-based **NAALADase** inhibitors)

IT Brain, disease

(stroke; prepn. and uses of thiol-based **NAALADase** inhibitors)

IT Spinal cord

(treatment of damage to; prepn. and uses of thiol-based **NAALADase** inhibitors)

IT 220464-68-6P, Methyl 3-bromomethyl-4-chlorobenzoate 377731-27-6P

377731-29-8P 377731-30-1P 377731-31-2P 377731-32-3P 443919-47-9P

443919-48-0P 443919-49-1P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(in prepn. and uses of thiol-based **NAALADase** inhibitors)

IT 1003-42-5 16308-65-9, Dimethyl 5-tert-butylisophthalate 19438-10-9,

Methyl 3-hydroxybenzoate 50995-48-7, Methyl 2,5-dibromopentanoate  
91367-05-4 254737-40-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(in prepn. and uses of thiol-based **NAALADase** inhibitors)

IT 128-08-5, N-Bromosuccinimide 558-13-4, Carbon tetrabromide 13292-87-0

RL: RGT (Reagent); RACT (Reactant or reagent)

(in prepn. and uses of thiol-based **NAALADase** inhibitors)

IT 377731-26-5P 377731-28-7P 378242-18-3P 378242-19-4P  
378242-20-7P 378242-21-8P 378242-22-9P 378242-23-0P  
378242-24-1P 378242-25-2P 378242-26-3P 378242-27-4P  
378242-28-5P 378242-29-6P 378242-30-9P 378242-31-0P  
378242-32-1P 378242-35-4P 378242-36-5P 378242-37-6P 378242-38-7P  
378242-39-8P 378242-40-1P 378242-41-2P 378242-43-4P  
378242-44-5P 378242-45-6P 378242-46-7P  
378242-47-8P 378242-48-9P 378242-49-0P  
378242-50-3P 378242-51-4P 378242-52-5P  
378242-53-6P 378242-54-7P 378242-55-8P  
378242-56-9P 378242-57-0P 378242-60-5P 378242-61-6P  
378242-62-7P 378242-63-8P 378242-64-9P  
378242-66-1P 378243-64-2P 378243-65-3P  
378243-66-4P 378243-67-5P 378243-68-6P  
378243-70-0P 378243-71-1P 378243-72-2P  
378243-73-3P 378243-75-5P 378243-76-6P  
378243-77-7P 378243-78-8P 378243-79-9P  
378243-80-2P 378243-81-3P 443919-36-6P 443919-37-7P  
443919-38-8P 443919-39-9P 443919-40-2P  
443919-41-3P 443919-42-4P 443919-43-5P  
443919-44-6P 443919-45-7P 443919-46-8P

RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. and uses of thiol-based **NAALADase** inhibitors)

IT 57-27-2, Morphine, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(prepn. and uses of thiol-based **NAALADase** inhibitors contg.)

IT 173039-10-6 200698-26-6 254737-18-3 254737-29-6

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(uses of thiol-based **NAALADase** inhibitors)

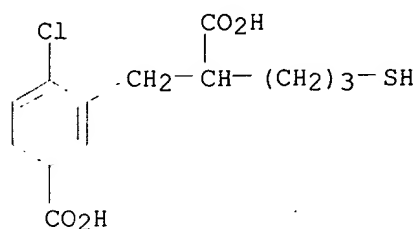
IT 377731-26-5P 377731-28-7P 378242-22-9P  
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378242-47-8P 378242-48-9P 378242-49-0P  
378242-50-3P 378242-51-4P 378242-52-5P  
378242-53-6P 378242-55-8P 378242-56-9P  
378242-62-7P 378242-64-9P 378242-66-1P  
378243-64-2P 378243-65-3P 378243-66-4P  
378243-67-5P 378243-68-6P 378243-70-0P  
378243-71-1P 378243-72-2P 378243-73-3P  
378243-75-5P 378243-76-6P 378243-77-7P  
378243-78-8P 378243-80-2P 378243-81-3P  
443919-38-8P 443919-40-2P 443919-41-3P  
443919-42-4P 443919-44-6P 443919-45-7P  
443919-46-8P

RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

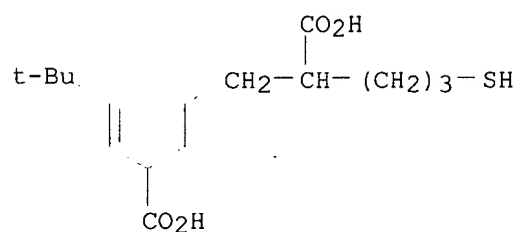
(prepn. and uses of thiol-based **NAALADase** inhibitors)

RN 377731-26-5 HCAPLUS

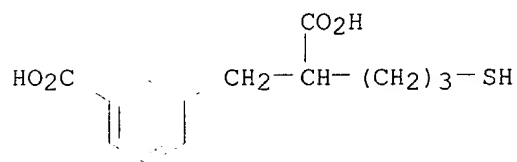
CN Benzenepropanoic acid, 5-carboxy-2-chloro-.alpha.-(3-mercaptopropyl)-  
(9CI) (CA INDEX NAME)



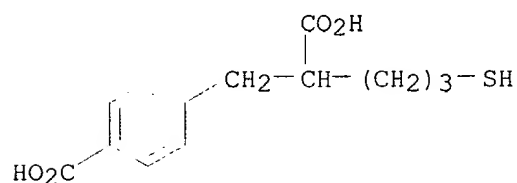
RN 377731-28-7 HCAPLUS  
 CN Benzenepropanoic acid, 3-carboxy-5-(1,1-dimethylethyl)-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



RN 378242-22-9 HCAPLUS  
 CN Benzenepropanoic acid, 3-carboxy-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)

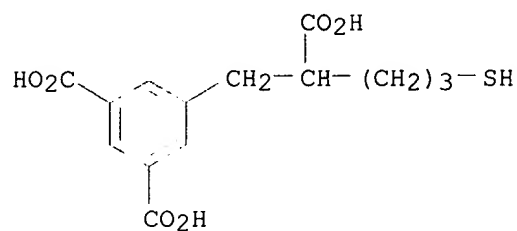


RN 378242-23-0 HCAPLUS  
 CN Benzenepropanoic acid, 4-carboxy-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)

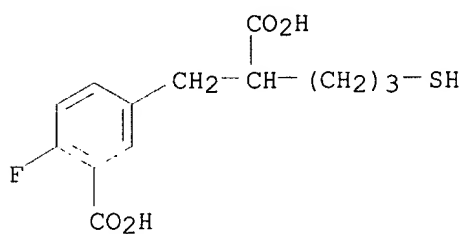


RN 378242-26-3 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, 5-(2-carboxy-5-mercaptopentyl)- (9CI) (CA INDEX NAME)

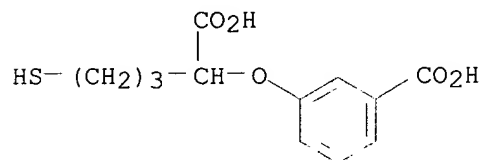




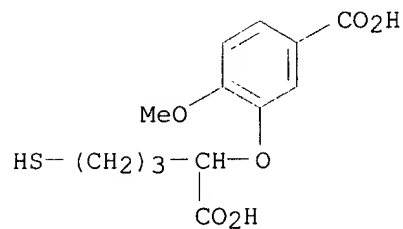
RN 378242-27-4 HCAPLUS  
 CN Benzenepropanoic acid, 3-carboxy-4-fluoro-.alpha.-(3-mercaptopropyl)-  
 (9CI) (CA INDEX NAME)



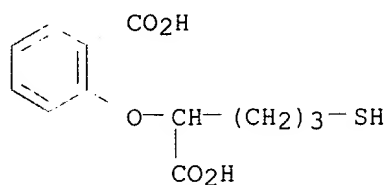
RN 378242-30-9 HCAPLUS  
 CN Benzoic acid, 3-(1-carboxy-4-mercaptobutoxy)- (9CI) (CA INDEX NAME)



RN 378242-44-5 HCAPLUS  
 CN Benzoic acid, 3-(1-carboxy-4-mercaptobutoxy)-4-methoxy- (9CI) (CA INDEX NAME)

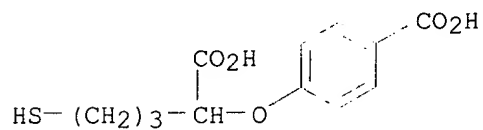


RN 378242-46-7 HCAPLUS  
 CN Benzoic acid, 2-(1-carboxy-4-mercaptobutoxy)- (9CI) (CA INDEX NAME)



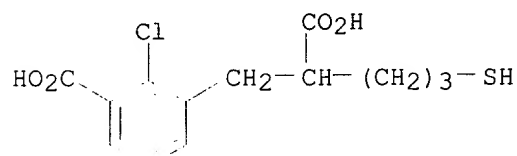
RN 378242-47-8 HCAPLUS

CN Benzoic acid, 4-(1-carboxy-4-mercaptoputoxy)- (9CI) (CA INDEX NAME)



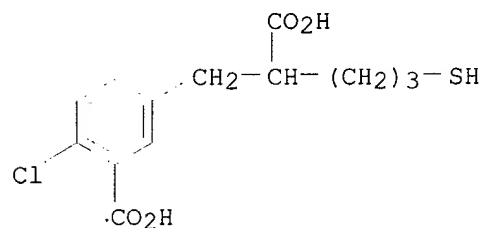
RN 378242-48-9 HCAPLUS

CN Benzenepropanoic acid, 3-carboxy-2-chloro-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



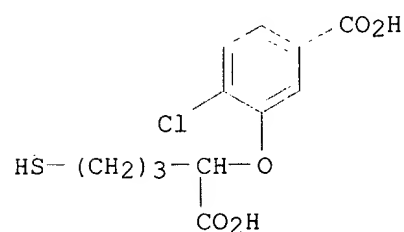
RN 378242-49-0 HCAPLUS

CN Benzenepropanoic acid, 3-carboxy-4-chloro-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)

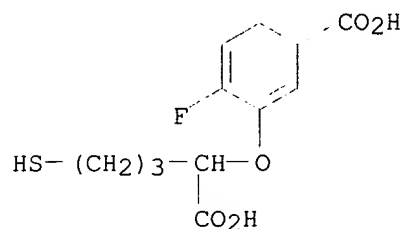


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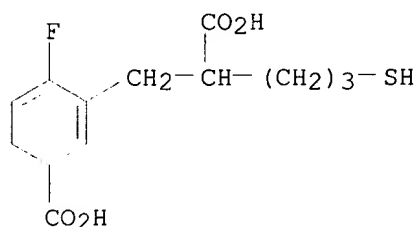
CN Benzoic acid, 3-(1-carboxy-4-mercaptoputoxy)-4-chloro- (9CI) (CA INDEX NAME)



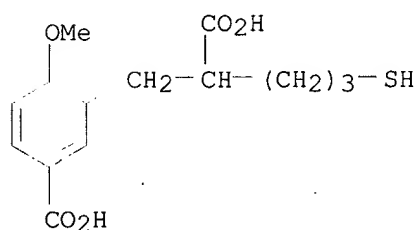
RN 378242-51-4 HCAPLUS  
 CN Benzoic acid, 3-(1-carboxy-4-mercaptobutoxy)-4-fluoro- (9CI) (CA INDEX NAME)



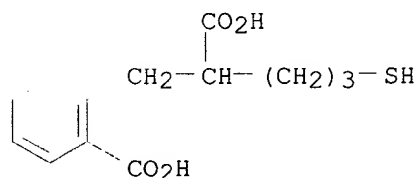
RN 378242-52-5 HCAPLUS  
 CN Benzenepropanoic acid, 5-carboxy-2-fluoro-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



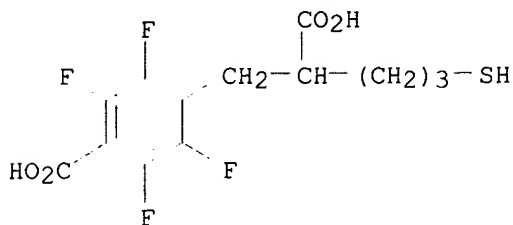
RN 378242-53-6 HCAPLUS  
 CN Benzenepropanoic acid, 5-carboxy-.alpha.-(3-mercaptopropyl)-2-methoxy- (9CI) (CA INDEX NAME)



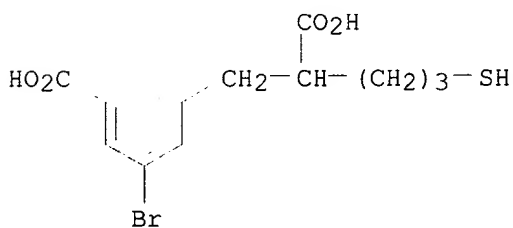
RN 378242-55-8 HCAPLUS  
 CN Benzenepropanoic acid, 2-carboxy-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



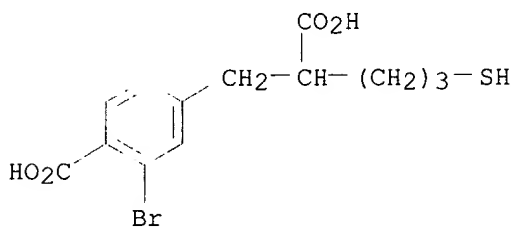
RN 378242-56-9 HCAPLUS  
 CN Benzenepropanoic acid, 4-carboxy-2,3,5,6-tetrafluoro-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



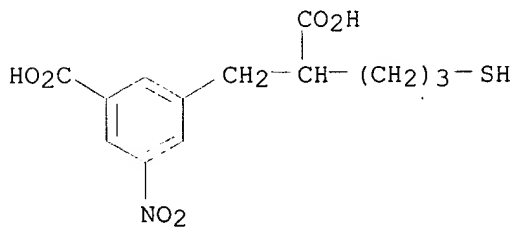
RN 378242-62-7 HCAPLUS  
 CN Benzenepropanoic acid, 3-bromo-5-carboxy-.alpha.-(3-mercaptopropyl)- (9CI)  
 (CA INDEX NAME)



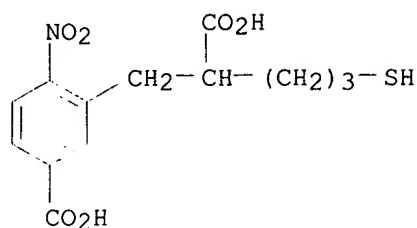
RN 378242-64-9 HCAPLUS  
 CN Benzenepropanoic acid, 3-bromo-4-carboxy-.alpha.-(3-mercaptopropyl)- (9CI)  
 (CA INDEX NAME)



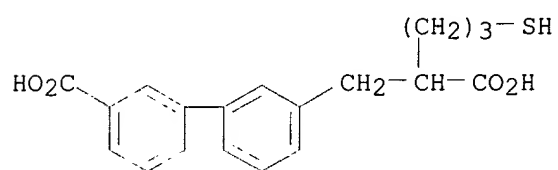
RN 378242-66-1 HCAPLUS  
 CN Benzenepropanoic acid, 3-carboxy-.alpha.-(3-mercaptopropyl)-5-nitro- (9CI)  
 (CA INDEX NAME)



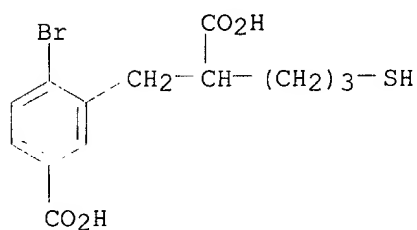
RN 378243-64-2 HCAPLUS  
 CN Benzenepropanoic acid, 5-carboxy-.alpha.-(3-mercaptopropyl)-2-nitro- (9CI)  
 (CA INDEX NAME)



RN 378243-65-3 HCAPLUS  
 CN [1,1'-Biphenyl]-3-propanoic acid, 3'-carboxy-.alpha.-(3-mercaptopropyl)-  
 (9CI) (CA INDEX NAME)

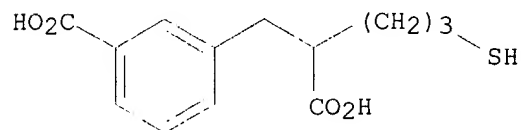


RN 378243-66-4 HCAPLUS  
 CN Benzenepropanoic acid, 2-bromo-5-carboxy-.alpha.-(3-mercaptopropyl)- (9CI)  
 (CA INDEX NAME)



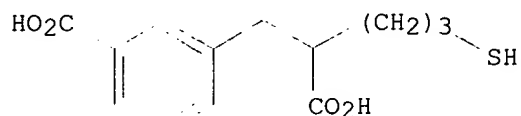
RN 378243-67-5 HCAPLUS  
 CN Benzenepropanoic acid, 3-carboxy-.alpha.-(3-mercaptopropyl)-, (+)- (9CI)  
 (CA INDEX NAME)

Rotation (+).

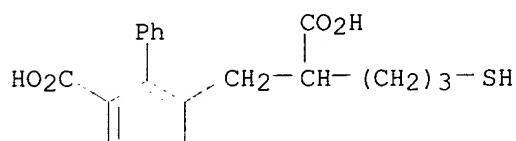


RN 378243-68-6 HCAPLUS  
 CN Benzenepropanoic acid, 3-carboxy-.alpha.-(3-mercaptopropyl)-, (-)- (9CI)  
 (CA INDEX NAME)

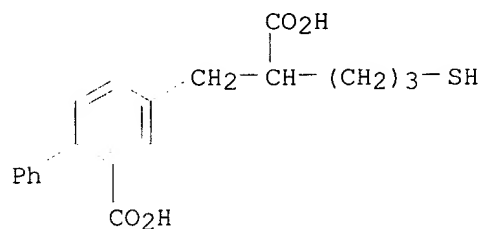
Rotation (-).



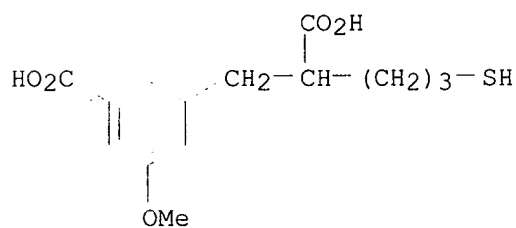
RN 378243-70-0 HCAPLUS

CN [1,1'-Biphenyl]-2-propanoic acid, 6-carboxy-.alpha.-(3-mercaptopropyl)-  
(9CI) (CA INDEX NAME)

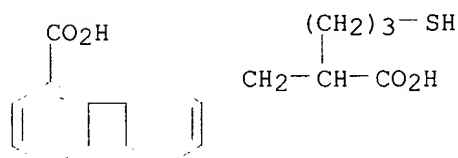
RN 378243-71-1 HCAPLUS

CN [1,1'-Biphenyl]-4-propanoic acid, 2-carboxy-.alpha.-(3-mercaptopropyl)-  
(9CI) (CA INDEX NAME)

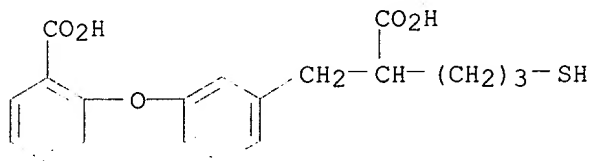
RN 378243-72-2 HCAPLUS

CN Benzenepropanoic acid, 3-carboxy-.alpha.-(3-mercaptopropyl)-5-methoxy-  
(9CI) (CA INDEX NAME)

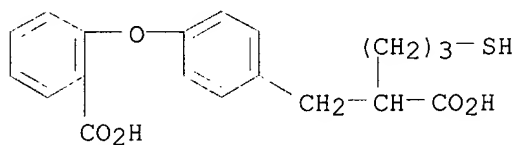
RN 378243-73-3 HCAPLUS

CN [1,1'-Biphenyl]-3-propanoic acid, 2'-carboxy-.alpha.-(3-mercaptopropyl)-  
(9CI) (CA INDEX NAME)

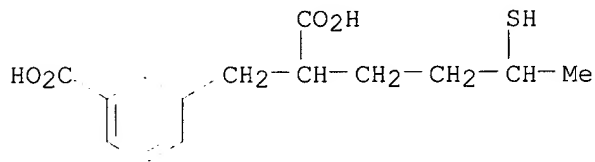
RN 378243-75-5 HCAPLUS  
 CN Benzenepropanoic acid, 3-(2-carboxyphenoxy)-.alpha.-(3-mercaptopropyl)-  
 (9CI) (CA INDEX NAME)



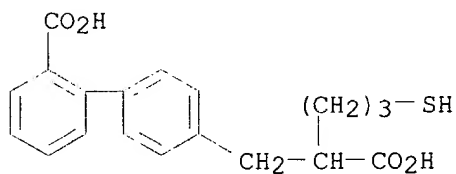
RN 378243-76-6 HCAPLUS  
 CN Benzenepropanoic acid, 4-(2-carboxyphenoxy)-.alpha.-(3-mercaptopropyl)-  
 (9CI) (CA INDEX NAME)



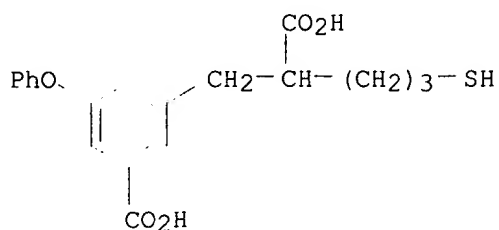
RN 378243-77-7 HCAPLUS  
 CN Benzenepropanoic acid, 3-carboxy-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



RN 378243-78-8 HCAPLUS  
 CN [1,1'-Biphenyl]-4-propanoic acid, 2'-carboxy-.alpha.-(3-mercaptopropyl)-  
 (9CI) (CA INDEX NAME)

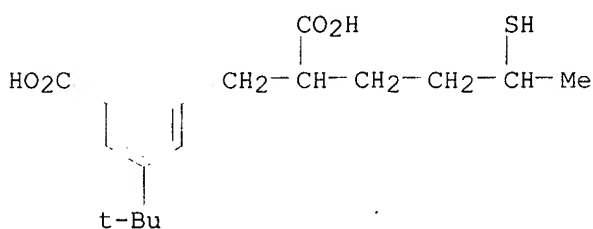


RN 378243-80-2 HCAPLUS  
 CN Benzenepropanoic acid, 3-carboxy-.alpha.-(3-mercaptopropyl)-5-phenoxy-  
 (9CI) (CA INDEX NAME)



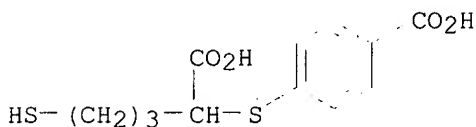
RN 378243-81-3 HCAPLUS

CN Benzenepropanoic acid, 3-carboxy-5-(1,1-dimethylethyl)-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



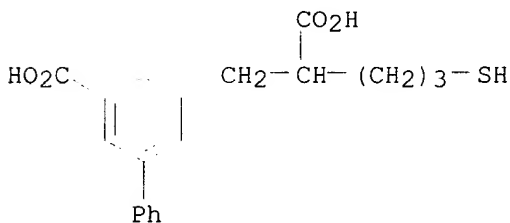
RN 443919-38-8 HCAPLUS

CN Benzoic acid, 4-[(1-carboxy-4-mercaptopropyl)thio]- (9CI) (CA INDEX NAME)



RN 443919-40-2 HCAPLUS

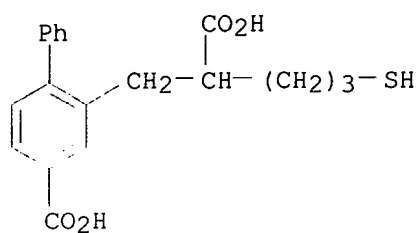
CN [1,1'-Biphenyl]-3-propanoic acid, 5-carboxy-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)



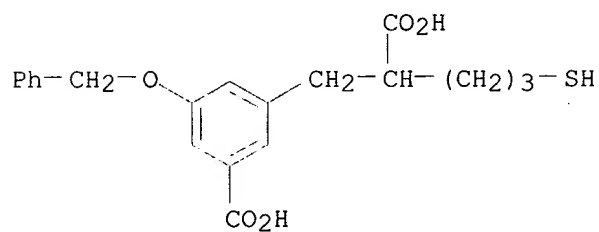
RN 443919-41-3 HCAPLUS

CN [1,1'-Biphenyl]-2-propanoic acid, 4-carboxy-.alpha.-(3-mercaptopropyl)- (9CI) (CA INDEX NAME)

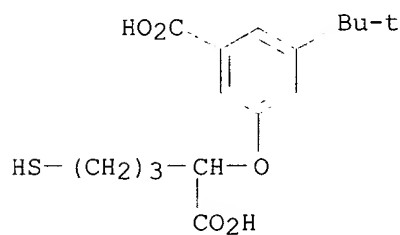




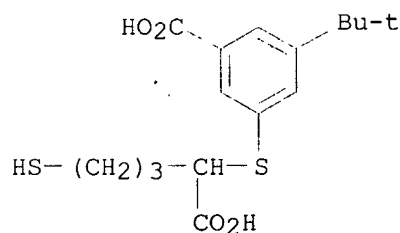
RN 443919-42-4 HCAPLUS  
 CN Benzenepropanoic acid, 3-carboxy-.alpha.-(3-mercaptopropyl)-5-(phenylmethoxy)- (9CI) (CA INDEX NAME)



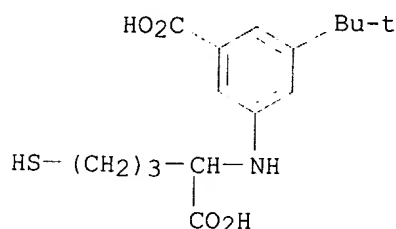
RN 443919-44-6 HCAPLUS  
 CN Benzoic acid, 3-(1-carboxy-4-mercaptopropoxy)-5-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



RN 443919-45-7 HCAPLUS  
 CN Benzoic acid, 3-[(1-carboxy-4-mercaptopropyl)thio]-5-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



RN 443919-46-8 HCAPLUS  
 CN Benzoic acid, 3-[(1-carboxy-4-mercaptopropyl)amino]-5-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



L103 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2002:353239 HCAPLUS  
 DN 136:374827  
 TI Receptor antagonist-lipid conjugates and delivery vehicles containing same  
 IN Ellens, Harma M.; Monck, Myrna A.; Yeh, Ping-Yang  
 PA Smithkline Beecham Corporation, USA  
 SO PCT Int. Appl., 44 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K  
 CC 63-6 (Pharmaceuticals)  
 Section cross-reference(s): 1, 28

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002036073	A2	20020510	WO 2001-US46206	20011029
	WO 2002036073	A3	20021205		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2002025878	A5	20020515	AU 2002-25878	20011029
PRAI	US 2000-245140P	P	20001102		
	WO 2001-US46206	W	20011029		

OS MARPAT 136:374827

AB Vesicular drug delivery vehicles, such as liposomes, comprise a targeting ligand which comprises a non-biol., biomimetic antagonist to a receptor that is upregulated at a disease site, directly or indirectly chem. linked to a polar head group of a vesicle-forming lipid. The non-biol., biomimetic antagonist is an antagonist to a receptor upregulated in the vascular endothelium of inflammation, infection or tumor sites, selected from integrin receptors, **prostate specific membrane antigen** (PSMA) receptor, herceptin, Tie 1 and Tie 2 receptors, ICAM1, folate receptor, bFGF receptor, EGF receptor, VEGF receptor, PDGF receptor, etc. The vesicle-forming lipid is selected from phospholipids, sterols, glycolipids, cationic lipids, sphingolipids, glycerolipids, hydrophilic polymer derivs. of these lipids, gemini surfactants, etc. For example, liposomes were prepd. contg. lipid conjugates with a vitronectin receptor antagonist, (S)-7-[[N--(4-aminobutyl)-N-(benzimidazol-2-yl-methyl)]amino]carbonyl-4-methyl-3-oxo-2,3,4,5-tetrahydro-1H-1,4-benzodiazepine-2-acetic acid (prepn. given) 0.5 mol%, DSPC 54.5 mol%, and cholesterol 45 mol%. The liposomes were loaded with topotecan using ion gradient or polymer gradient loading/retaining techniques and administered to a patient diagnosed with ovarian cancer to inhibit growth of the cancerous tumor. A dosing regimen

was 1.5 mg/m<sup>2</sup> of the topotecan liposomes given as a 30 min infusion over the course of 1-3 days in a week for 2 wk in a 21 day cycle, repeated for 4 cycles.

ST liposome receptor antagonist lipid conjugate targeting; inflammation  
infection tumor targeting receptor antagonist

IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(E-selectin, antagonists; receptor antagonist-lipid conjugates and  
delivery vehicles contg. same)

IT Cell adhesion molecules

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(ICAM-1 (intercellular adhesion mol. 1), antagonists; receptor  
antagonist-lipid conjugates and delivery vehicles contg. same)

IT Tyrosine kinase receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(Tie, 1 and 2, antagonists; receptor antagonist-lipid conjugates and  
delivery vehicles contg. same)

IT Sialic acids

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(analogs; receptor antagonist-lipid conjugates and delivery vehicles  
contg. same)

IT Integrins

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(antagonist; receptor antagonist-lipid conjugates and delivery vehicles  
contg. same)

IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(antagonists, lipid conjugates; receptor antagonist-lipid conjugates  
and delivery vehicles contg. same)

IT Endoglins

Epidermal growth factor receptors

Laminin receptors

Platelet-derived growth factor receptors

Vascular endothelial growth factor receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(antagonists; receptor antagonist-lipid conjugates and delivery  
vehicles contg. same)

IT Lipids, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(cationic; receptor antagonist-lipid conjugates and delivery vehicles  
contg. same)

IT Lipids, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(conjugates, with receptor antagonists; receptor antagonist-lipid  
conjugates and delivery vehicles contg. same)

IT Imaging agents

(contrast; receptor antagonist-lipid conjugates and delivery vehicles  
contg. same)

IT **Eye, disease**

(**diabetic retinopathy**; receptor antagonist-lipid  
conjugates and delivery vehicles contg. same)

IT Blood vessel

(endothelium, receptors upregulated in; receptor antagonist-lipid  
conjugates and delivery vehicles contg. same)

IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(folate, antagonists; receptor antagonist-lipid conjugates and delivery  
vehicles contg. same)

IT Surfactants

(gemini; receptor antagonist-lipid conjugates and delivery vehicles  
contg. same)

IT Lipids, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(glycerolipids; receptor antagonist-lipid conjugates and delivery vehicles contg. same)

IT Blood vessel, neoplasm  
(hemangioma, inhibitors; receptor antagonist-lipid conjugates and delivery vehicles contg. same)

IT Antitumor agents  
(hemangioma; receptor antagonist-lipid conjugates and delivery vehicles contg. same)

IT Ovary, neoplasm  
(inhibitors; receptor antagonist-lipid conjugates and delivery vehicles contg. same)

IT Drug delivery systems  
(liposomes; receptor antagonist-lipid conjugates and delivery vehicles contg. same)

IT Antitumor agents  
(ovary; receptor antagonist-lipid conjugates and delivery vehicles contg. same)

IT Sialic acids  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(polymers; receptor antagonist-lipid conjugates and delivery vehicles contg. same)

IT Receptors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(protein, P-selectin, antagonists; receptor antagonist-lipid conjugates and delivery vehicles contg. same)

IT Anti-infective agents  
Anti-inflammatory agents  
Antiarthritics  
Antidiabetic agents  
Antirheumatic agents  
Antitumor agents  
Drug delivery systems  
Human  
Psoriasis  
(receptor antagonist-lipid conjugates and delivery vehicles contg. same)

IT Glycolipids  
Phosphatidylcholines, biological studies  
Phosphatidylethanolamines, biological studies  
Phosphatidylserines  
Phospholipids, biological studies  
Polyoxyalkylenes, biological studies  
Sphingolipids  
Sterols  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(receptor antagonist-lipid conjugates and delivery vehicles contg. same)

IT Infection  
Inflammation  
Neoplasm  
(receptors upregulated in vascular endothelium of; receptor antagonist-lipid conjugates and delivery vehicles contg. same)

IT Prostate-specific antigen  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(receptors, antagonists; receptor antagonist-lipid conjugates and delivery vehicles contg. same)

IT Artery, disease  
(restenosis; receptor antagonist-lipid conjugates and delivery vehicles contg. same)

IT Phosphatidylcholines, biological studies  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(soya, hydrogenated; receptor antagonist-lipid conjugates and delivery vehicles contg. same)